Service Manual

VL3000™ Spot & Wash / VL3000™ Q Spot & Wash Luminaires

02.9678.0010

PHILIPS

VARI*LITE

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VARI✳LITE® products are protected by one or more of the following patents, and other pending patent applications worldwide:

U. S. Patents No. 6,809,869; 6,796,682; 6,769,792; 6,578,987; 6,550,939; 6,282,027; 6,123,436; 6,113,252; 6,046,861; 6,031,749; 6,011,640; 5,969,868; 5,959,768; 5,934,794; 5,882,107; 5,829,868; 5,825,548; 5,798,619; 5,774,273; 5,769,527; 5,758,956; 5,728,994; 5,640,061; 5,590,954; 5,454,477; 5,432,691; 5,367,444; 5,329,431; 5,307,295; 5,282,121; 5,278,742; 5,209,560; 5,186,536; 5,073,847; 5,010,459; 4,980,806; 4,972,306; 4,800,474; 4,779,176; 4,701,833; 4,602,321;

U. S. Design Patents No. 524,245; 457,678; 452,339; 451,890; 442,944; 439,356; 420,332; 417,300; 415,301; 414,888; 413,995; 377,338; 366,712; 359,574; 350,408; 347,113;

Australia Patents No. 693,691; 683,695; 667,109; 649,264; 646,588; 586,095; 576,400;

Australia Design Patents No. 128,796; 128,795;

Canada Patents No. 2,070,670; 2,050,375; 1,270,675; 1,259,058;

Canada Design Patents No. 81,234; 81,233; 76,046;

European (UK) Patents No. 0 652 400; 0 586 049; 0 565 218; 0 547 732; 0 534 710; 0 495 305; 0 474 202; 0 379 970; 0 253 082; 0 253 081; 0 248 974; 0 192 882;

Germany Patents No. 694 25 943.8; 693 14 122.0; 692 08 615.3; 692 07 692.1; 691 31 478.0; 691 21 029.2; 690 33 385.4; 37 89 166.9; 37 68 727.1; 37 51 804.6; 37 50 201.8; 35 87 270.5;

Germany Design Patents No. M 98 01 745.4; M 96 04 515.9; M 96 04 514.0; M 94 07 689.8; M 94 02 951.2; M 499 03 583.6; M 498 11 203.9; G 93 12 884.3;

Spain Patents No. 2 090 191; 2 084 289; 2 020 960; 0 548 328;

Spain Utility Model Patent No. 2.031.748;

Spain Design Patents No. 0.137.502; 0.137.501; 0.133.573;

Greece Patent No. 910.400.544;

Japan Patents No. 2,843,696; 2,059,669; 2,055,324; 2,002,168; 1,966,525; 1,889,481; 1,792,721; 1,770,241;

Japan Design Patents No. 985,985-1; 985,985; 947,552; 945,436-1; 945,436; 1,106,089; 1,077,598; 1,072,598; 1,060,414; 1,002,123;

Korea Patents No. 76,310; 42,639; 283,770; 181,180;

Korea Design Patents No. 209,896; 209,895;

Mexico Patent No. 180,148;

Taiwan Patents No. 78,726; 66,975; 65,380; 28,275;

United Kingdom Design Registrations No. 2082526; 2072562; 2056387; 2056386; 2042174; 2038212; 2033108; 2029499.

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How To Obtain Warranty Service

A copy of the Vari-Lite Limited Warranty was included in the shipping package for this VARI✻LITE® product.

To obtain warranty service, please contact customer service at 1-877-VARI-LITE (1-877-827-4548) or customerservice@genlytecontrols.com and request a Return Material Authorization (RMA) for warranty service. You will need to provide the model and serial number of the item being returned, a description of the problem or failure and the name of the registered user or organization. If available, you should have your sales invoice to establish the date of sale as the beginning of the warranty period.

Once you obtain the RMA, pack the unit in a secure shipping container or in its original packing box. Fill out the RMA form included at the end of this manual and place in shipping container along with a copy of your invoice (if available). Write the RMA number legibly on or near the shipping address label and return the unit, freight prepaid to:

Vari-Lite
Attention: Warranty Service (RMA# _____)
10911 Petal Street
Dallas, Texas 75238 USA

As stated in the warranty, it is required that the shipment be insured and FOB our service center.

Compliance Notice

FCC This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

CE

Declaration of Conformity

We declare, under our sole responsibility, that this product complies with the relevant clauses of the following standards and harmonized documents:

Safety

EN 60598-1:2000 Luminaire Safety Standard, General Requirements
EN 60598-2 17:1989/A2:1991 Specification for Luminaires for Stage and Studio Lighting

EMC

EN 61000-6-4:2001

We certify that the product conforms to the protection requirements of council directives: 73/23/EEC (LVD) and 89/336/EEC (EMC)

Safety Notice

It is extremely important to read ALL safety information and instructions provided in this manual and any accompanying documentation before installing and operating the products described herein. Heed all cautions and warnings during installation and use of this product.

Safety symbols used throughout this manual are as follows:

CAUTION advising of potential damage to product.

WARNING advising of potential injury or death to persons.

GENERAL INFORMATION PERTAINING TO PROTECTION AGAINST ELECTRICAL SHOCK, FIRE, EXPOSURE TO EXCESSIVE UV RADIATION, AND INJURY TO PERSONS CAN BE FOUND BELOW.

WARNING:
INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST FIRE

1. VARI✻LITE® luminaires have been designed for use with specific lamp types. The Series 3000 luminaires require an Osram HMI 1200 W/S metal halide lamp. Installing another type of lamp may be hazardous.
2. Luminaires may be mounted on any type of surface as long as mounting instructions are followed. See instructions detailed in this manual.
3. Note distance requirement from combustible materials or illuminated objects for VARI✻LITE® luminaires.

WARNING:
INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK

1. VARI✻LITE® luminaires are designed for dry locations only. Exposure to rain or moisture may damage luminaire.
2. Disconnect power before servicing any VARI✻LITE® equipment.
3. Servicing to be performed by qualified personnel only.

WARNING:
INSTRUCTIONS FOR CONTINUED PROTECTION AGAINST EXCESSIVE EXPOSURE TO UV RADIATION

1. Many VARI✳LITE® luminaires use a lamp that produces UV radiation. DO NOT look directly at lamp.
2. It is hazardous to operate luminaires without lens or shield. Shields, lenses, or ultraviolet screens shall be changed if they have become visibly damaged to such an extent that their effectiveness is impaired. For example, by cracks or deep scratches.

WARNING:
INSTRUCTIONS FOR PROTECTION AGAINST INJURY TO PERSONS

1. Exterior surfaces of the luminaire will be hot during operation. Use appropriate safety equipment (gloves, eye protection, etc.) when handling and adjusting hot equipment and components.
2. Luminaires will have a hot lamp when operating. Disconnect power and allow lamp to cool before replacing.
3. Arc lamps emit ultraviolet radiation which can cause serious skin burn and eye inflammation. Additionally, arc lamps operate under high pressure at very high temperatures. Should the lamp break, there can exist a danger of personal injury and/or fire from broken lamp particles being discharged.
4. Wear eye protection when relamping.
5. Appropriate safety equipment (gloves, eye protection) should be used when handling damaged lamps.
6. If lamp is touched with bare hands, clean lamp with denatured alcohol and wipe with lint-free cloth before installing or powering up the luminaire.
7. The lamp shall be changed if it has become damaged or thermally deformed.

WARNING:
RF INTERFERENCE

1. This is a Class A product. In a domestic environment this product may cause radio interference, in which case, the user may be required to take adequate measures.

ARC LAMP CHARACTERISTIC CONSIDERATIONS

1. Arc lamps require a period of time to relight after a power interruption or a severe voltage dip. In some cases, lamp will automatically relight after it has cooled depending on Lamp Power-Up State configuration setting.
2. Burning position is Universal.

Sicherheitshinweise

Es ist äußerst wichtig, ALLE Sicherheitsinformationen und -hinweise in diesem Handbuch und dem beiliegenden Informationsmaterial zu lesen, bevor Sie die hierin beschriebenen Produkte installieren bzw. bedienen. Halten Sie bei der Installation und dem Einsatz dieses Produkts alle Warnhinweise und Vorsichtsmaßnahmen ein.

Folgende Sicherheitssymbole werden in diesem Handbuch verwendet:

VORSICHT - weist auf möglichen Produktschaden hin.

WARNUNG - weist auf mögliche Körperverletzung und Lebensbedrohung hin.

NACHSTEHEND FINDEN SIE ALLGEMEINE HINWEISE ÜBER SICHERHEITSVORKEHRUNGEN GEGEN ELEKTROSCHOCK, FEUER, ÜBERHÖHTE UV-STRAHLUNG UND KÖRPERVERLETZUNGEN.

WARNUNG:
HINWEISE ZUM FEUERSCHUTZ

1. VARI✻LITE®-Scheinwerfer sind ausschließlich für den Einsatz mit bestimmten Lampentyps. Achten Sie auf den Lampentyp (Osram HMI 1200 W/S metal halide lamp), bevor Sie die jeweiligen Lampen ersetzen. Die Installation eines anderen Lampentyps kann gefährlich sein.
2. Scheinwerfer können auf jeder beliebigen Oberfläche montiert werden, solange Sie die Montageanweisungen befolgen. Detaillierte Hinweise finden Sie in diesem Handbuch.
3. Beachten Sie die Einhaltung des erforderlichen Sicherheitsabstandes der VARI✻LITE®-Scheinwerfer von brennbarem Material oder beleuchteten Objekten.

WARNUNG:
HINWEISE ZUM SCHUTZ GEGEN ELEKTROSCHOCK

1. VARI✻LITE®-Scheinwerfer eignen sich ausschließlich für trockene Standorte. Regen oder Feuchtigkeit können die Scheinwerfer beschädigen.
2. Unterbrechen Sie die Stromzufuhr, bevor Sie mit der Arbeit an VARI✻LITE®-Geräten beginnen.
3. Die Geräte sollten nur von qualifiziertem Personal gewartet werden.

WARNUNG:
HINWEISE ZUM SCHUTZ GEGEN ÜBERHÖHTE UV-STRAHLUNG

1. Viele VARI*LITE®-Scheinwerfer verwenden die Lampentyp, der UV-Strahlen abgibt. SCHAUEN SIE NICHT direkt in die Lampe.
2. Es ist gefährlich, Leuchten ohne Linsen oder Blenden zu bedienen. Blenden, Linsen oder Ultraviolettschirme müssen ausgetauscht werden, sofern deren Schutzwirkung durch sichtbare Beschädigung (z. B. Sprünge oder Schrammen) eingeschränkt ist.

WARNUNG:
HINWEISE ZUM SCHUTZ GEGEN KÖRPERVERLETZUNGEN

1. Bei Betrieb sind die Außenflächen der Scheinwerfer heiß. Verwenden Sie bei der Bedienung von aufgeheizter Apparatur die jeweils geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz etc.).
2. Bei Betrieb der Scheinwerfer ist die Lampe heiß. Unterbrechen Sie die Stromzufuhr und lassen Sie die Lampe abkühlen, wenn Sie diese austauschen.
3. Bogenlampen senden ultraviolette Strahlen aus, die Hautverbrennungen und Augenentzündungen verursachen können. Der Betrieb von Bogenlampen erfolgt unter Hochdruck und bei hohen Temperaturen. Sollte die Lampe zerbrechen, besteht die Gefahr von Körperverletzung bzw. von Feuer, das von Lampenteilen ausgelöst werden kann.
4. Tragen Sie beim Austausch der Lampen einen Augenschutz.
5. Die geeignete Sicherheitsausrüstung (Handschuhe, Augenschutz) sollte beim Umgang mit beschädigten Lampen verwendet werden.
6. Wenn die Lampe mit bloßen Händen berührt wird, reinigen Sie sie mit denaturiertem Alkohol und einem flusenfreien Tuch, bevor Sie die Scheinwerfer installieren oder in Betrieb nehmen.
7. Wenn die Lampe beschädigt oder durch Hitzeeinwirkung deformiert ist, muß diese ausgetauscht werden.

WARNUNG:
HF-INTERFERENZ

1. Es handelt sich um ein Produkt der Klasse A. In einer Wohnumgebung kann das Produkt Hochfrequenzstörungen verursachen. In diesem Fall müssen eventuell geeignete Maßnahmen getroffen werden.

BESONDERHEITEN VON BOGENLAMPEN

1. Bogenlampen benötigen eine gewisse Zeitdauer, um nach einem Stromausfall oder einem Spannungsgefälle wieder aufzuleuchten. In einigen Fällen wird die Lampe nach Abkühlung automatisch wieder aufleuchten, je nach der Systemkonfigurationseinstellung des Lampeneinschaltungsstatus.
2. Die Brennposition ist Universal.

Notes de sécurité

Avant de procéder à l'installation des produits décrits dans ce guide et de les mettre en marche, il est extrêmement important de lire TOUS les renseignements et TOUTES les directives de sécurité contenues dans ce guide ainsi que toute documentation jointe. Tenir compte de tous les avertissements et suivre toutes les précautions pendant l'installation et l'utilisation de cet appareil.

Les symboles de sécurité utilisés dans ce guide sont les suivants :

ATTENTION Ce symbole annonce que l'appareil risque d'être endommagé.

AVERTISSEMENT Ce symbole annonce qu'il y a risque d'accident grave ou même fatal.

CETTE SECTION CONTIENT DES INFORMATIONS GÉNÉRALES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES , LES INCENDIES, L'EXPOSITION EXCESSIVE AUX RAYONS UV ET TOUT AUTRE ACCIDENT POUVANT ENTRAÎNER DES BLESSURES.

AVERTISSEMENT:
DIRECTIVES POUR SE PROTÉGER CONTRE LES INCENDIES

1. Les luminaires VARI✻LITE® ont été conçus pour être utilisés uniquement avec certaines type de lampes. Vérifier le type de lampe (Osram HMI 1200 W/S metal halide lamp) avant de remplacer les lampes. L'installation d'un autre type de lampe peut poser un danger.
2. Les luminaires peuvent être fixés sur tout type de surface tant que les directives de montage sont respectées. Voir les explications détaillées dans ce guide.
3. Vérifier la distance à respecter entre les matériaux combustibles ou les objets illuminés et les luminaires VARI✻LITE®.

AVERTISSEMENT:
DIRECTIVES POUR SE PROTÉGER CONTRE LES DÉCHARGES ÉLECTRIQUES

1. Les luminaires VARI✻LITE® sont conçus pour une utilisation au sec uniquement. Une exposition à la pluie et à l'humidité risque d'endommager le luminaire.
2. Débrancher l'appareil avant de procéder à la révision de tout matériel VARI✻LITE®.
3. Les révisions doivent être effectuées uniquement par des personnes qualifiées.

AVERTISSEMENT:
DIRECTIVES POUR SE PROTÉGER CONTRE UNE EXPOSITION EXCESSIVE AUX RAYONS UV

1. Plusieurs luminaires VARI✳LITE® utilisent une lampe qui produit des rayons UV. NE PAS fixer son regard sur la lampe.
2. L'utilisation des luminaires sans lentille ou blindage pose des risques. Tous blindages, lentilles ou écrans ultraviolet visiblement endommagés au point que leur efficacité en est affectée doivent être remplacés, par exemple s'il y a des fissures ou de profondes rayures.

AVERTISSEMENT:
DIRECTIVES POUR SE PROTÉGER CONTRE LES ACCIDENTS POUVANT ENTRAÎNER DES BLESSURES

1. Les surfaces externes du luminaire deviennent brûlantes quand l'appareil est en marche. Pour manœuvrer ou ajuster des appareils brûlants et leurs composants, se protéger suffisamment (gants, protection pour les yeux, etc.).
2. La lampe du luminaire est brûlante lorqu'il est en marche. Débrancher le courant et attendre que la lampe ait refroidi avant de la remplacer.
3. Les lampes à arc émettent des rayons ultraviolets pouvant causer de graves brûlures sur la peau et une inflammation des yeux. De plus, les lampes à arc fonctionnent sous haute tension à de très hautes températures. Si la lampe se casse, les particules de la lampe cassée peuvent causer blessures et/ou incendie en s'éparpillant.
4. Se protéger les yeux pour remplacer la lampe.
5. Utiliser des appareils de protection appropriés (gants, protection des yeux) pour manier des lampes endommagées.
6. Si la lampe a été touchée avec des mains nues, la nettoyer avec de l'alcool dénaturé et l'essuyer avec un chiffon non-pelucheux avant d'installer ou de brancher le luminaire.
7. Si la lampe a été endommagée ou a reçu une déformation thermique, elle doit être remplacée.

AVERTISSEMENT:
INTERFÉRENCE RF

1. Cet appareil est de Classe A. Dans un environnement domestique, cet appareil peut causer des interférences radio, et si c'est le cas, l'utilisateur peut avoir à prendre des mesures adéquates.

CONSIDÉRATIONS DES CARACTÉRISTIQUES DE LAMPES À ARC

1. Après une interruption de courant ou une baisse importante de voltage, les lampes à arc mettent du temps avant de se rallumer. Dans certains cas, la lampe se rallumera automatiquemet après s'être refroidie. Cela dépend de la manière dont le système est réglé pour le statut de mise en marche de la lampe.
2. La position Brûler est Universelle.

Aviso sobre Seguridad

Es muy importante leer TODA la información e instrucciones sobre seguridad que se indica en este manual así como en los documentos adjuntos antes de instalar y operar los productos descritos. Se debe prestar atención a todos los avisos y advertencias durante la instalación y uso de este producto.

Los símbolos de seguridad usados en este manual son los siguientes:

CUIDADO, indica posibles daños al producto.

ADVERTENCIA, indica posibles lesiones o muerte a las personas.

LA INFORMACIÓN GENERAL RELACIONADA A LA PROTECCIÓN CONTRAGOLPES DE CORRIENTE ELÉCTRICA, INCENDIO, EXPOSICIÓN EXCESIVA A RADIACIÓN ULTRA VIOLETA Y LESIONES A LAS PERSONAS SE PUEDE ENCONTRAR SEGUIDAMENTE:

ADVERTENCIA:
INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA INCENDIO

1. Las luminarias VARI✻LITE® han sido diseñadas para ser usadas solamente con algunas lámparas. Tome nota del tipo de lámpara (Osram HMI 1200 W/S metal halide lamp) antes de reemplazarla. Instalación de otro tipo de lámpara puede ser peligroso.
2. Las luminarias se pueden instalar en cualquier tipo de superficie siempre que se sigan las instrucciones de instalación. Vea las instrucciones detalladas en este manual.
3. Tome nota de los requerimientos de distancia de materiales combustibles u objetos iluminados para las luminarias VARI✻LITE®.

ADVERTENCIA:
INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA CHOQUE ELÉCTRICO

1. Las luminarias VARI✻LITE® están diseñadas solamente para lugares secos. La exposición a la lluvia o humedad pueden dañar la luminaria.
2. Desconecte la energía antes de dar servicio a cualquier equipo de VARI✻LITE®.
3. El servicio debe ser realizado solamente por personal calificado.

ADVERTENCIA:
INSTRUCCIONES PARA PROTECCIÓN CONTINUA CONTRA LA EXPOSICIÓN EXCESIVA DE RADIACIÓN ULTRA VIOLETA

1. Muchas luminarias VARI✳LITE® usan un tipo de lámpara que produce radiación UV. NO mire directamente a la lámpara.
2. Es peligroso operar luminarias sin lentes o protectores. Debe cambiar los protectores, lentes o pantallas ultravioletas si se aprecia que han sido dañadas, y que su efectividad pudiera estar deteriorada. Por ejemplo, si tuvieran rajaduras o raspaduras profundas.

ADVERTENCIA:
INSTRUCCIONES PARA PROTECCIÓN CONTRA LESIONES DE PERSONAS

1. Las superficies exteriores de las luminarias están calientes durante su operación. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando haga ajustes en el equipo y componentes que están calientes.
2. Cuando las luminarias están en operación la lámpara estará muy caliente. Desconecte la energía y deje que la lámpara se enfríe antes de reemplazarla.
3. Las lámparas de arco emiten radiaciones ultravioletas que pueden ocasionar serias quemaduras a la piel e inflamación a los ojos. Además, las lámparas de arco operan a alta presión y muy alta temperatura. Si la lámpara se rompe, puede existir el peligro de lesiones al personal o un incendio ocasionado por las partículas de la lámpara rota que se caen.
4. Use protección para los ojos cuando vuelve a colocar una lámpara nueva.
5. Use un equipo de seguridad apropiado (guantes, protección para los ojos, etc.) cuando trabaje con lámparas dañadas.
6. Si toca la lámpara con las manos, limpie la lámpara con alcohol desnaturalizado y con tela sin pelusas antes de instalar o volver a conectar la luminaria.
7. Cambie la lámpara si está dañada o deformada termicamente.

ADVERTENCIA:
INTERFERENCIA RF

1. Este es un producto de Clase A. En el ambiente de la casa este producto puede ocasionar radiointerferencia, en cuyo caso, el usuario debe tomar las medidas adecuadas.

CONSIDERACIONES SOBRE LAS CARACTERÍSTICAS DE LA LÁMPARA DE ARCO

1. Las lámparas de arco requieren un período de tiempo para volver a iluminarse después de una interrupción de energía o de una severa caída de voltaje. En algunos casos, la lámpara se volverá a iluminar en forma automática después que se ha enfriado dependiendo de la configuración del sistema de energía de la lámpara.
2. La posición de encendido es universal.

安全性に関する注意事項

ここに記載されている製品を取り扱う場合は、まず本マニュアルおよび付属のマニュアルの安全性に関する情報と説明をすべてお読みください。また、実際に本製品を取り付けたり使用する際には、すべての注意事項および警告に留意して作業してください。

本マニュアルでは、以下の安全マークを使用しています。

注意：製品に損傷を与える危険性があります。

警告：人身事故につながる危険性があります。

感電、火災、UV 放射に対する過度の露出、および人身事故を防ぐための一般的な情報については、以下の説明をお読みください。

警告：
火災の発生を防ぐためのヒント

1. VARI*LITE® 照明器具は、ランプを使用するように設計されています。ランプを交換する際は、ランプの種類 (など）を確認するようにしてください。他の種類のランプを取り付けると危険です。
2. 照明器具は、本マニュアルの指示に従って操作するかぎり、どのようなタイプの表面にでも取り付けることができます。詳細については、本マニュアルを参照してください。
3. ヒューズを交換する場合は、同じヒューズ（同じ種類、同じクラス）を使用してください。
4. VARI*LITE® 照明器具は、可燃性物質または他の光源から必要な距離だけ離して配置してください。

警告：
感電を防ぐためのヒント

1. VARI*LITE® 照明器具は、乾燥した環境で使用するように設計されています。雨で濡れる場所や湿気の多い場所に取り付けると、照明器具が傷むことがあります。
2. VARI*LITE® 照明器具を修理点検する場合は、必ず先に電源を切ってください。
3. 照明器具の修理点検は、資格を持つ技師のみが行うようにしてください。

警告：
過度の UV 放射にさらされないためのヒント

1. VARI*LITE® 照明器具の多くは、UV 放射を生ずる HID タイプのランプを使用しています。ランプを直視することは避けてください。
2. レンズまたはシールドを使わずに照明器具を点灯すると危険です。レンズ、シールド、紫外線画面は、ひび割れや深い引っかき傷などにより、その効力が損なわれるようになったら取り替えるようにします。

警告：
人身事故を防ぐためのヒント

1. 照明器具が点灯しているときは、その外側が熱くなります。熱くなった器具やコンポーネントを取り扱う際には、適切な防具（手袋や保護用眼鏡）を使用してください。
2. 照明器具が点灯しているときは、そのランプが熱くなります。ランプを交換する場合は、照明器具の電源を切り、ランプの温度が下がるまで待ってください。ランプの裏ぶたをあけると、遮断スイッチが働いて、ランプの電源が切れる場合があります。
3. アーク灯は紫外線を放射します。この紫外線によって、ひどい火傷を負ったり、目の炎症を起こすことがあります。さらに、アーク灯は、高圧高温の状態で光を発します。そのため、万一アーク灯が破損すると、飛び散った破片で人身事故や火災が発生する危険性があります。
4. 再点灯するときには、保護用眼鏡を着用してください。
5. 損傷したランプを取り扱う場合は、適切な防具（手袋や保護用眼鏡）を着用してください。
6. 手袋を着用せずに直接手でランプを触った場合は、変性アルコールを使ってランプをきれいにし、糸くずの出ない布で拭いてから照明器具を取り付け、電源を入れるようにします。
7. 傷がついたランプや熱によって変形したランプは取り替えてください。

警告：
RF 干渉

1. 本製品は Class A に分類されます。本製品は、家庭環境において無線干渉を起こす可能性があります。その場合、使用者は適切な処置を取らなければならないことがあります。

アーク灯の特性

1. 停電後または大きな電圧ディップ後にアーク灯を再点灯する場合は、しばらく時間をおくようにしてください。Lamp Power-Up State）シ
   ステム設定によっては、温度が下がったときに自動的に再点灯される場合もあります。
2. アーク灯は点光源です。

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Introduction

About This Manual

This manual provides descriptions, repair procedures, and illustrated parts breakdowns for all configurations of the VL3000™. The manual is intended for use by Vari-Lite personnel and by Vari-Lite's customers/clients.

WARNING: It is important to read ALL accompanying safety and installation instructions to avoid damage to the product and potential injury to yourself or others.

This manual covers the following models:

Model	Part Number	Source
VL3000 Spot Luminaire	20.9678.0001	Arc
VL3000 Wash Luminaire	20.9678.0002	Arc
VL3000Q Spot Luminaire	20.9678.0003	Arc
VL3000Q Wash Luminaire	20.9678.0004	Arc

Note: Performing maintenance procedures may void the product warranty. Refer to the Vari-Lite Limited Warranty card included in the product shipping package for more information.

Additional Documentation

For complete installation and operation instructions, refer to the luminaire's user manual. This manual is available in both printed and electronic (PDF) formats:

- VL3000 Series Luminaire User's Manual (02.9678.0001) and,
- VL3000Q Series Luminaire User's Manual (02.9678.0005)
- For more information regarding DMX512 systems, refer to the DMX512/1990 & AMX 192 Standards publication available from United States Institute for Theatre Technology, Inc. (USITT).

  USITT
  6443 Ridings Road
  Syracuse, NY 13206-1111 USA
  1-800-93USITT
  www.usitt.org

Customer Service

Our Goal

At Vari-Lite, we are committed to providing you the highest quality in customer service. Our comprehensive resources are available to help your business succeed and ensure you get the full benefit of being a Vari-Lite customer. Whether your needs are telephone troubleshooting assistance, product training or technical service, our full-time staff of experienced professionals are on-hand to provide support.

How to Reach Us

For assistance in your area, call the dealer from which your product(s) were purchased.

or

Contact an Authorized Service Center.

or

Contact the Vari-Lite Customer Service Department, 9am - 6pm CST Monday through Friday, at the following:

phone: 1.877.VARI-LITE (1-877.827.4548) or 1.214.647.7880
fax: 1.214.647.8038
E-mail: customerservice@genlytecontrols.com

Additional Resources

For additional resources and documentation, please visit our website at: www.vari-lite.com and follow the Support link.

Technical Bulletins and Notices

Technical bulletins concerning the latest changes to VARI*LITE® equipment are issued from the Dallas, Texas USA office. They are documentation supplements that contain procedures for equipment upgrades, retrofits, and repairs not found in the existing manuals. Operator technical bulletins are also issued to document changes in control software. Technical bulletins are integrated into the appropriate equipment manuals as those manuals are revised. Bulletins are categorized by assembly or subassembly, and identified by a number such as S3K-001 (VL3000 Series Luminaires Technical Bulletin number 1). A list of technical bulletins for these products is found in "VL3000 & VL3000Q Technical Bulletins" on page 197.

Technical notices are also issued from the Dallas, Texas USA office. They are non-procedural documents that contain information regarding product support issues, current equipment problems, software bugs, and documentation corrections. All technical notices begin with the prefix TN and are numbered sequentially, such as TN-138 (Tech Notice number 138).

CHAPTER 1.

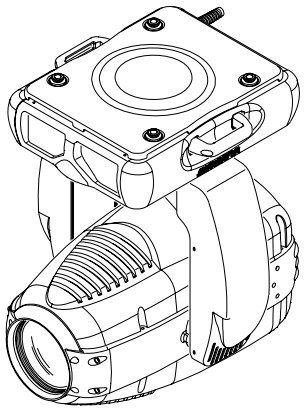
Description

This chapter contains descriptions of luminaire features and components.

- **Features**
- **Components**
- **Principles of Operation**

Features

Standard Features



All VL3000 series luminaire have the following standard features:

- CYM color mixing system.
- Variable CTO color correction.
- Six-position, fixed color wheel.
- Full field dimming system.
- Dual blade strobe system.
- Repositional pan/tilt system.
- Control by DMX512 protocol.
- Fan cooled.
- UV/IR glass.
- Precision glass reflector with dichroic cold-mirror coating.
- 1200W lamp source.

Specific Features

VL3000 and VL3000Q Spot Luminaires

- 13 element, 6:1 zoom optics system with 10° to 60° range.
- Variable beam focus to morph between gobo wheels.
- Two, six-position gobo wheels with five rotatable, indexable gobo positions and one open position.
- Five-position gobo wheel with four rotatable, indexable positions and one open position.
- VL3000Q only: 50% audible reduction in noise output from the VL3000 luminaires.

VL3000 and VL3000Q Wash Luminaires

- Zoomable beam spreader mechanism.
- VL3000Q only: 50% audible reduction in noise output from the VL3000 luminaires.

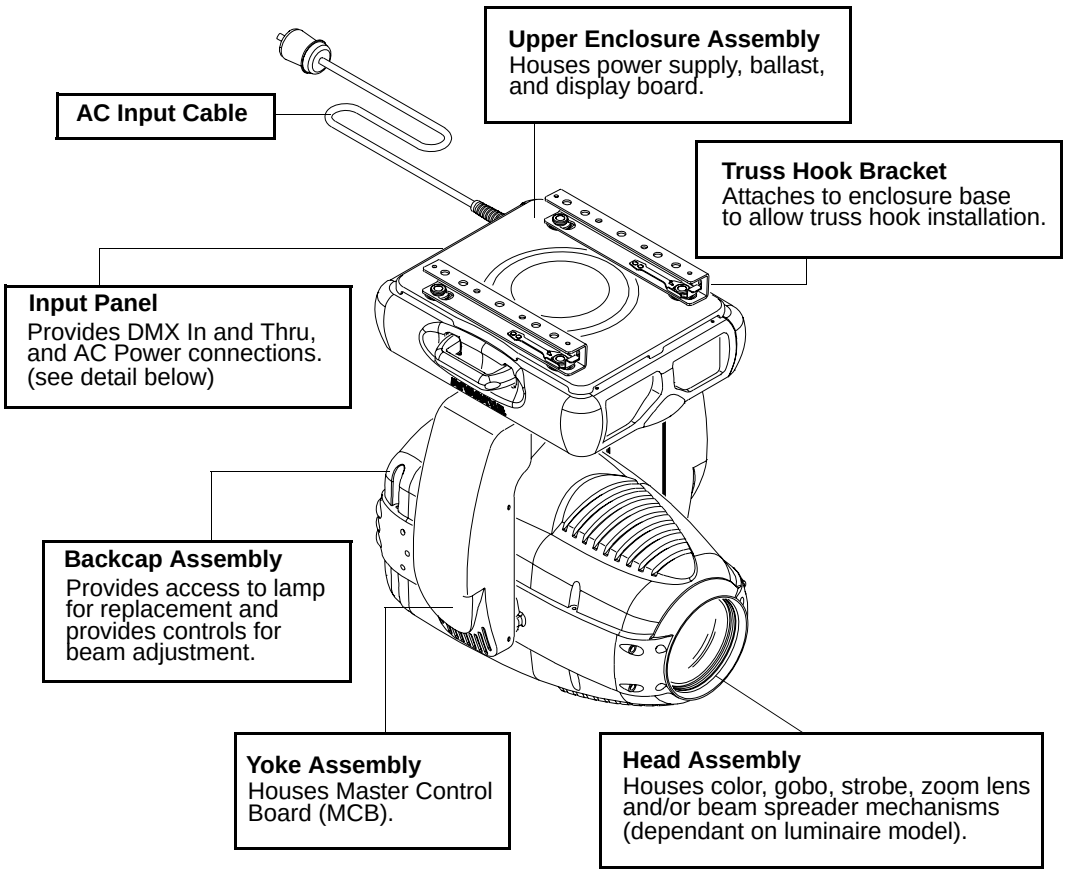
Technical Specifications

For technical specifications, refer to VL3000 Series Luminaire User's Manuals (VL3000: 02.9678.0001 and VL3000Q: 02.9678.0005).

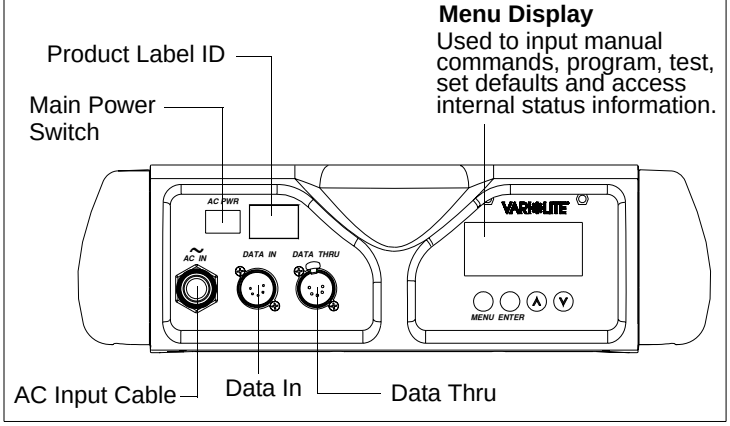
Components

External Luminaire Components

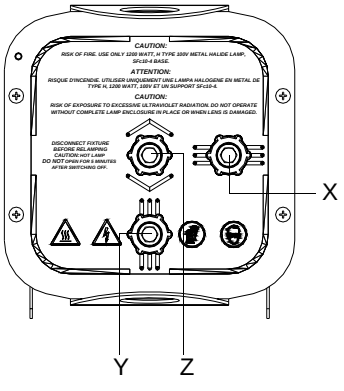
The following illustration shows the external luminaire components and controls.


Upper Enclosure Assembly
Houses power supply, ballast, and display board.
AC Input Cable
Truss Hook Bracket
Attaches to enclosure base to allow truss hook installation.
Input Panel
Provides DMX In and Thru, and AC Power connections. (see detail below)
Backcap Assembly
Provides access to lamp for replacement and provides controls for beam adjustment.
Yoke Assembly
Houses Master Control Board (MCB).
Head Assembly
Houses color, gobo, strobe, zoom lens and/or beam spreader mechanisms (dependant on luminaire model).

Input Panel Components

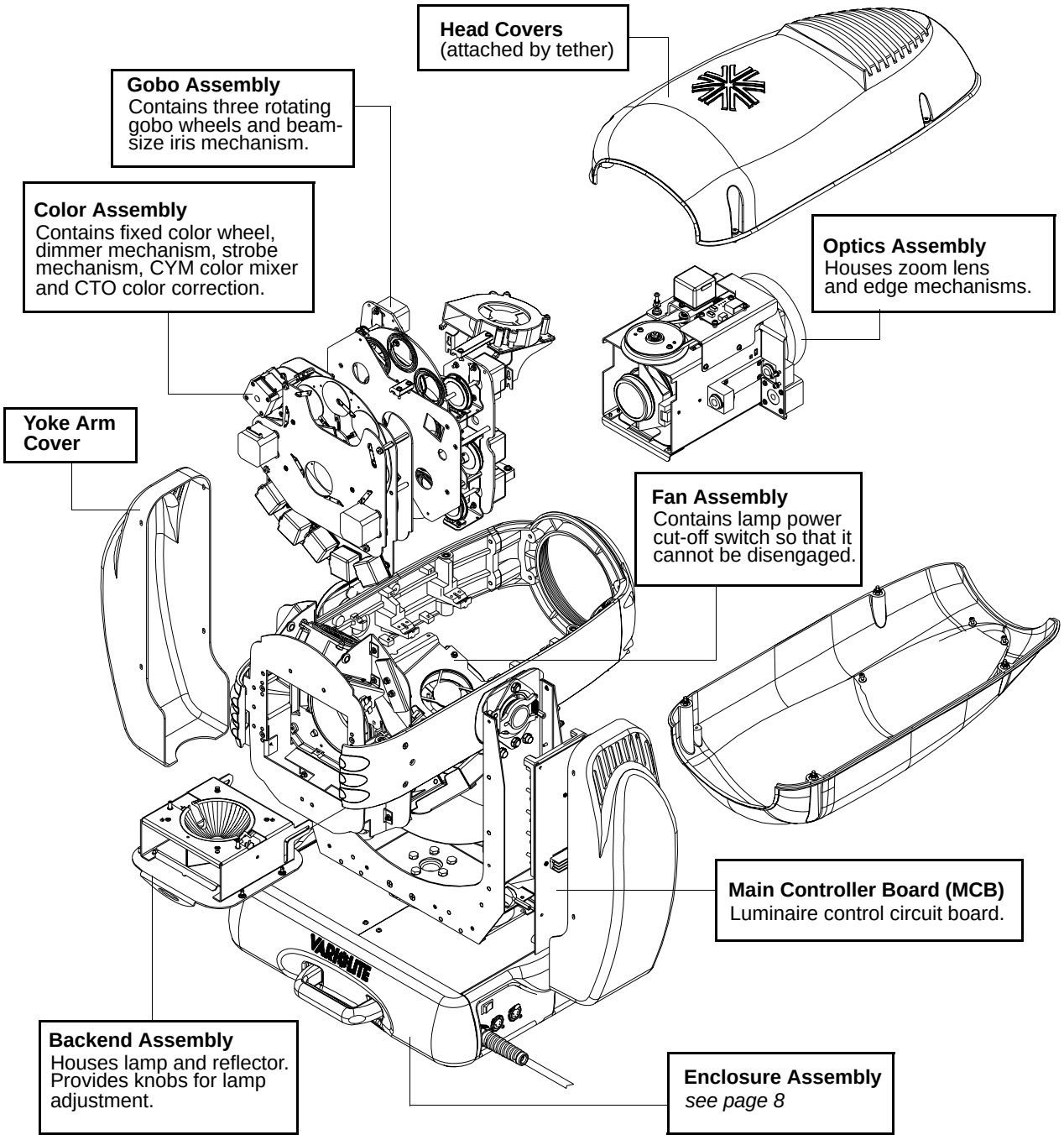


Beam Adjustment Controls



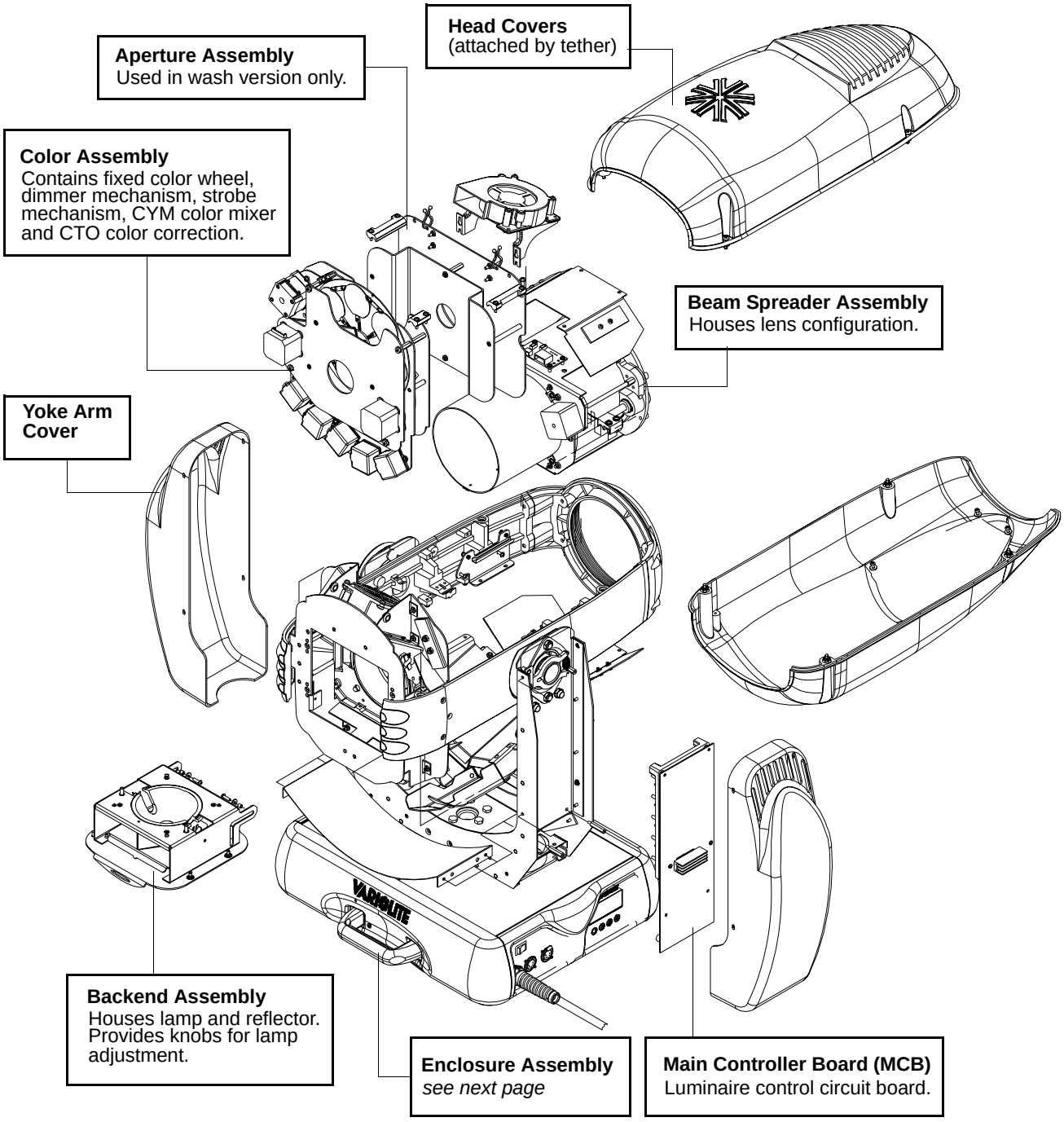
VL3000 Spot Luminaire Head and Yoke Components

The following illustration shows the major sub-assemblies that are located in the luminaire head and yoke assemblies.


Head Covers
(attached by tether)
Gobo Assembly
Contains three rotating gobo wheels and beam-size iris mechanism.
Color Assembly
Contains fixed color wheel, dimmer mechanism, strobe mechanism, CYM color mixer and CTO color correction.
Optics Assembly
Houses zoom lens and edge mechanisms.
Yoke Arm Cover
Fan Assembly
Contains lamp power cut-off switch so that it cannot be disengaged.
Main Controller Board (MCB)
Luminaire control circuit board.
Backend Assembly
Houses lamp and reflector. Provides knobs for lamp adjustment.
Enclosure Assembly
see page 8

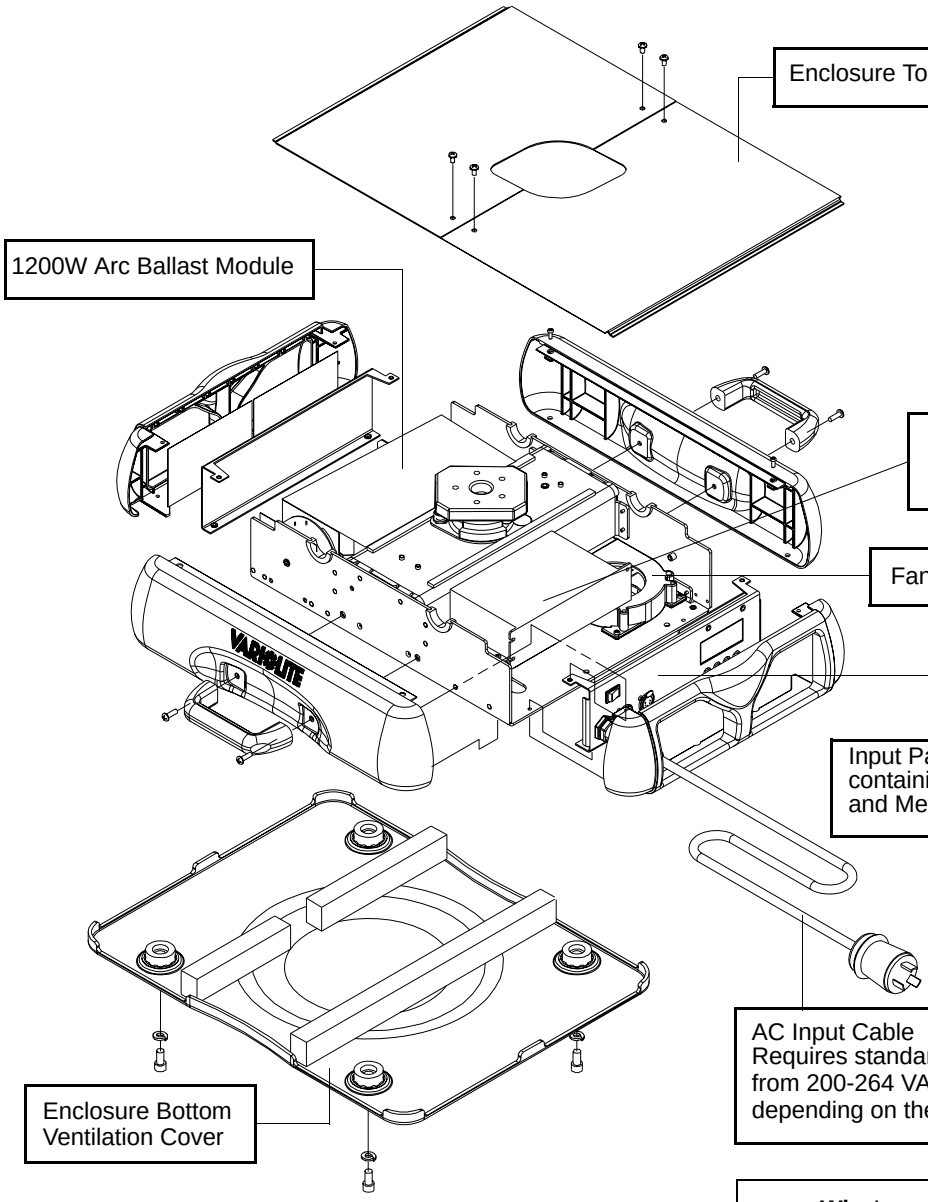
VL3000 Wash Luminaire Head and Yoke Components

The following illustration shows the major sub-assemblies that are located in the luminaire head and yoke assemblies.



Enclosure Components

The following illustration shows the major sub-assemblies that are located in the luminaire enclosure assembly. (Yoke and head assemblies not shown for clarity.)


Enclosure Top Covers
1200W Arc Ballast Module
150W +24V/6.3A Power Supply
Fan Assembly
Input Panel Assembly containing DMX Input PCB and Menu Display
AC Input Cable
Requires standard AC power distribution from 200-264 VAC, 50/60 Hz., 7 to 12 A depending on the AC supply voltage.
Enclosure Bottom Ventilation Cover

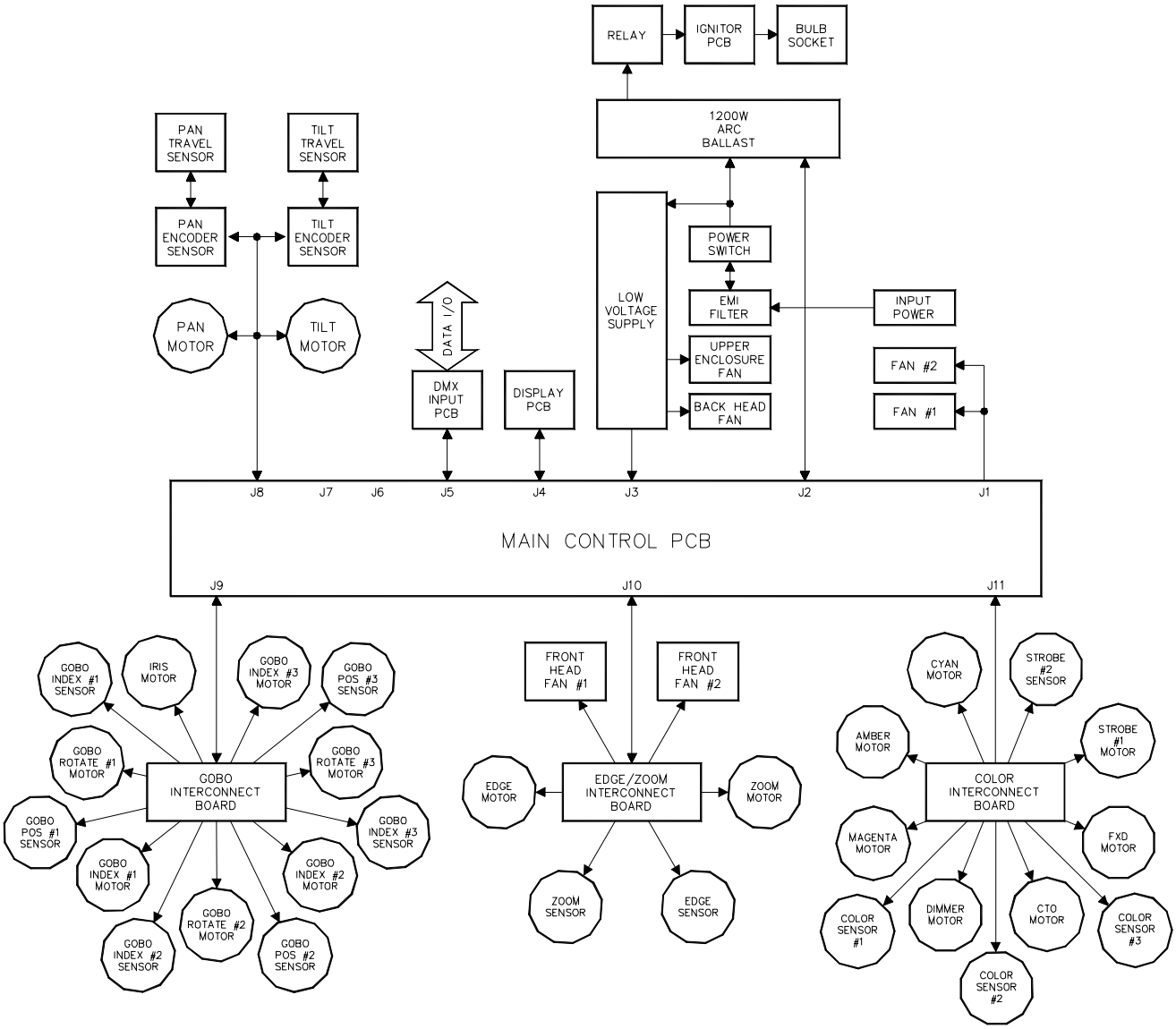
Wire*	Connection
Green/Yellow	AC Ground
Blue	AC Neutral
Brown	AC Line

* International (Harmonized) Standard

Principles of Operation

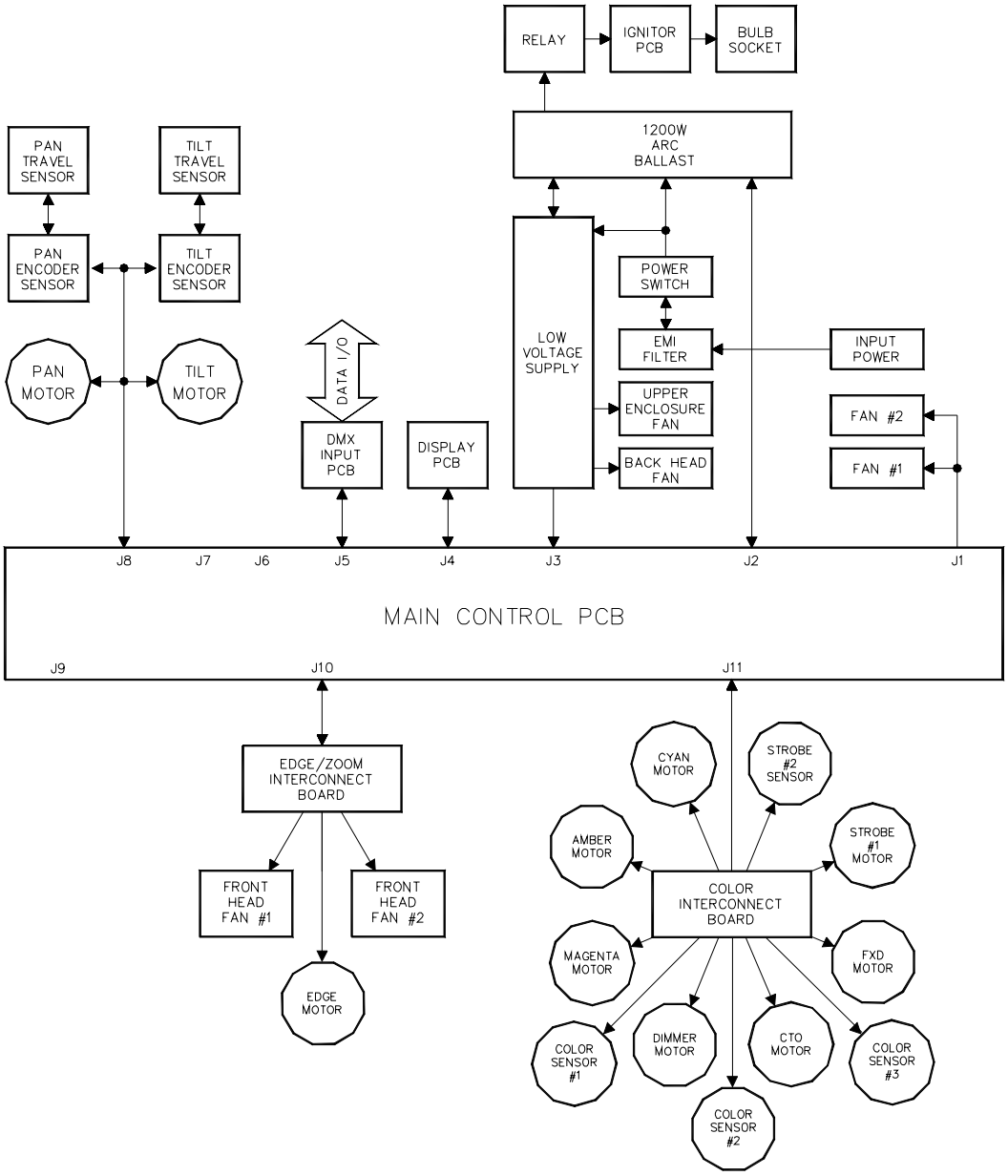
VL3000 and VL3000Q Spot Luminaire

Functional Block Diagram



VL3000 and VL3000Q Wash Luminaire

Functional Block Diagram



CHAPTER 2.

Maintenance

This chapter contains test, service, and standard maintenance procedures.

- **Testing**
- **Troubleshooting**
- **Maintenance Procedures**

Testing

Luminaire Self-Tests

The luminaire is capable of running self tests by using the TEST menu functions. For detailed instructions regarding the luminaire's self-test function, refer to the VL3000 User's Manual for your luminaire (02.9678.0001 or 02.9678.0005).

Calibration Sequence

The following is an outline of the luminaire's standard calibration sequence:

Phase 1

- Strobe

Phase 2

- Tilt
- Gobo1
- Gobo2
- Gobo3

Phase 3

- Gobo1 Index
- Gobo2 Index
- Gobo3 Index
- Color Wheel
- Dimmer

Phase 4

- Edge
- Beam Spreader (wash only)
- CTO
- Blue
- Amber
- Magenta

Phase 5

- Pan
- Zoom
- Beam

Auto Recalibration

Most mechanisms with sensors will check their sensor when at a zero position, if the sensor is not detected within 3 seconds, the mechanism will recalibrate. This applies to all except pan and tilt, pan and tilt are corrected continuously if required by encoders fitted to the motor shaft.

It is possible to recalibrate sections of the luminaire from a console. This allows greater flexibility and speed by only forcing a recalibration on specific mechanisms

Partial recalibration values:

- Hold DMX value 102 for 3 seconds then 0 recalls color: Color wheel, CYM, CTO, Dimmer
- Hold DMX value 114 for 3 seconds then 0 recalls gobos: Gobo wheels and Index
- Hold DMX value 128 for 3 seconds then 0 recalls lenses: Edge, Zoom or beam spreader
- Hold DMX value 140 for 3 seconds then 0 recalls dimmer and strobe

Sensor Testing

Most mechanisms within the VL3000 luminaire are equipped with either optical or magnetic sensors. The VL3000 master control board (MCB) has labeled test points for reading DC voltages at each sensor. Testing is best performed with a digital voltmeter for sensor readings or an oscilloscope for pan/tilt encoder readings. The values can be used to determine whether a circuit is opening correctly or for further troubleshooting.

Guidelines:

- The values will change depending on whether the sensor reading is Open or Closed.
- The values will be different depending on the type of sensor: optical or magnetic.
- As a general rule, if a change occurs from 5 volts to 0 volts or visa versa, then it is working.
- An Open reading occurs when the sensor is not aligned - tab not at sensor (typically a non-zero DMX value).
- A Closed reading occurs when the sensor is aligned - tab in or at sensor (typically a zero DMX value).
- Optical sensors read high when the sensor is Closed.
- Magnetic sensors read Low when the sensor is Closed.
- High value - 5 volts (typically 4.9 volts).
- Low value - 0 volts (or up to approximately 0.2 volts).

Notes regarding specific mechanisms:

- The four color mixers and dimmer will read high when the tab is in the optical sensor.
- The fixed color wheel will read low when the magnet is at the sensor and high at other times.
- The zoom and edge will read high when the sensor is closed, or the tab is in the sensor.
- The gobo wheel reads low when the magnet is at the sensor.
- The gobo index/rotation reads low when the slot is in the sensor.
- Pan and tilt sensors read high when the tab is in the sensor. The mechanism calibrates to the edge and its tab covers 50% of travel. Pan and tilt encoders are best read with a scope to read the encoder ticks.

Notes regarding lamp control:

- The douse command applies 5v to the out line. When the start command is given, this drops to 0v. This can be measured at the MCB at the ballast connection. The Out pin of the 5-pin connector should read 0v when the lamp is striking or On (Config>Lamp>Power>On). When the douse command is given (Config>Lamp>Power>Off), the reading should changed to 5v. Likewise, the standby circuit goes to standby when 5v is received on the standby line. Equally, if 5v is applied to the standby line, the lamp will go into standby mode, and if 5v is applied to the Out line, the lamp will douse.

Troubleshooting

Error Messages

If a problem occurs during luminaire calibration, at the end of the calibration sequence the Menu Display will cycle through any applicable error message(s), one a time until the end of the list is reached. To review the error messages again, it will be necessary to access them using the Status function. (Refer to "Troubleshooting Guide" on page 16 for a list of possible causes and remedies associated with the error messages.)

To access error messages:

Step 1. Press [Menu].

Step 2. Press [Up] / [Down] arrows until Fixture appears. Press [Enter].

Step 3. Press [Up]/ [Down] arrows to access Status. Press [Enter]. (Display will now scroll through any error messages or display OK if there are no errors.)

Table 2-1: Error Messages

Display	Message...
OK	No Errors Found
Pan/No Sens	Pan sensor not found.
Pan/Encoder/Fail	Pan encoder failure.
Tilt/No Sens	Tilt sensor not found.
Tilt/Encoder/Fail	Tilt encoder failure.
Index1/No Sens	Gobo 1 Index sensor not found.
Gobo1/No Sens	Rotating Gobo 1 sensor not found.
Index2/No Sens	Gobo 2 Index sensor not found.
Gobo2/No Sens	Rotating Gobo 2 sensor not found.
Index3/No Sens	Gobo 3 Index sensor not found.
Gobo3/No Sens	Rotating Gobo 3 sensor not found.
Dimmer/No Sens	Dimmer sensor not found.
Blue/No Sens	Blue sensor not found.
Amber/No Sens	Amber sensor not found.
Magenta/No Sens	Magenta sensor not found.
ColWheel/No Sens	Color wheel sensor not found.
CTO/No Sens	CTO sensor not found.
Zoom/No Sens	Zoom sensor not found.
Edge/No Sens	Edge sensor not found.

Troubleshooting Guide

If a problem is suspected, try recalibrating the luminaire to prompt an error message. Refer to "Error Messages" on page 56 for more information. The chart below provides possible causes and remedies for each message.

Table 2-2: Troubleshooting Guide

Message	Description	Symptom	Possible Cause and Remedy
n/a	DMX Failure	No response to DMX data	MCB connector disconnected... - check MCB DATA IN connection.
n/a	Lamp Douse	Lamp douses frequently	Fan failure... - check fans for proper connection and operation.
n/a	Lamp Strike Failure	Lamp will not strike	Lamp cutout switch engaged... - check lamp cutout switches at lamp box and fan ducts. Bad lamp... - replace lamp.
n/a	Profile Not Matched	Luminaire behaves oddly	Profile not set correctly... - check Setup menu for correct type (spot or wash).
No Sens	Mechanism failed to find sensor (reported for Blue, Amber, Magenta, Col-Wheel, CTO, Gobo1, Index1, Gobo2, Index2, Gobo3, Index3, Zoom and Edge)	No control continuous recalibration, and/or mechanism at wrong position	Motor power not connected... - connect motor power. Sensor not connected... - connect sensor. Interconnect board not connected securely... - check connection, inspect for bent pins. Movement restricted or impeded... - remove obstruction, check cable routing, and/or check voltage at MCB test point.
n/a	No power	Luminaire does not power-up	Switch not turned on... - verify switch is turned on. Not plugged in... - ensure A/C cable is connected to power source.
Pan/ Encoder/ Fail	Pan Encoder Failure	Luminaire will not pan	MCB pan/tilt connector disconnected... - connect MCB pan/tilt connector (J8). Pan motor disconnected - connect pan motor power. Encoder faulty... - replace pan end-of-travel/encoder sensor assembly.

Table 2-2: Troubleshooting Guide (Continued)

Message	Description	Symptom	Possible Cause and Remedy
Pan No Sens	Pan Sensor Not Found	Luminaire will not pan	EOT flag attached to large pulley is not engaging the EOT sensor... - ensure flag is attached to the large pulley. - ensure that flag passes through the sensor at a depth sufficient to engage the sensor beam. Pan belt disconnected, extremely loose or not installed properly... - properly install belt between pan motor and large pulley.
Tilt/ Encoder/ Fail	Tilt Encoder Failure	Luminaire will not tilt	MCB pan/tilt connector disconnected... - connect MCB pan/tilt connector (J8). Tilt motor disconnected - connect tilt motor power. Encoder faulty... - replace tilt end-of-travel/encoder sensor assembly.
Tilt No Sens	Tilt Sensor Not Found	Luminaire will not tilt	EOT flag attached to large pulley is not engaging the EOT sensor... - ensure flag is attached to the large pulley. - ensure that flag passes through the sensor at a depth sufficient to engage the sensor beam. Tilt belt disconnected, extremely loose or not installed properly... - properly install belt between tilt motor and large pulley.
n/a	Color, Dimmer, or Strobe Failure	Color, dimmer or strobe mechanisms will not move	MCB connector disconnected... - check MCB connector at J11. Check Interconnect board.
n/a	Zoom/Edge or Beam Spreader Failure	Zoom/Edge or beam spreader mechanisms will not move	MCB connector disconnected... - check MCB connector at J10. Check Interconnect board.
n/a	Gobos or Iris Failure	Gobo or iris mechanisms will not move	MCB connector disconnected... - check MCB connector at J9. Check Interconnect board.
n/a	DMX Data Input	Self tests will not run or software download does not work.	Detecting DMX data... - disconnect DMX input cable.
n/a	DMX Termination	Erratic control of luminaire	No DMX termination or termination not correct... - check DMX terminator.

Maintenance Procedures

Lamp Replacement

VL Part No: 71.2557.1200

WARNING: Ensure that power is removed from luminaire when installing lamp.

CAUTION: Wear cotton gloves or other covering while installing lamp. Touching lamp glass or lamp holder contacts with bare fingers will leave oil and may cause the lamp to explode or reduce lamp life. If touched, use alcohol and cotton cloth to thoroughly clean and remove fingerprints.

Repair/Replacement Procedure

Step 1. Ensure power is removed from luminaire.

Step 2. At rear of luminaire head, loosen four 1/4-turn screws and slide lamp box back (it is hinged).

Step 3. One side at a time, gently pry/pull up (at metal connection of lamp) lamp from lamp socket.

Step 4. Position new lamp with dimple side down (towards reflector). One side at a time, press lamp into lamp socket connector. Ensure lamp is seated fully in place.

Note: Dimple on lamp must be towards reflector as described above. Position lamp before lamp is seated into lamp holder. Because of the tension of the lamp holder, trying to turn or reposition the lamp, once installed, is difficult and may break the lamp.

Step 5. Close lamp box and re-tighten 1/4-turn screws.

Step 6. Align lamp for flat field after power up, as detailed in "Align Lamp" on page 19.

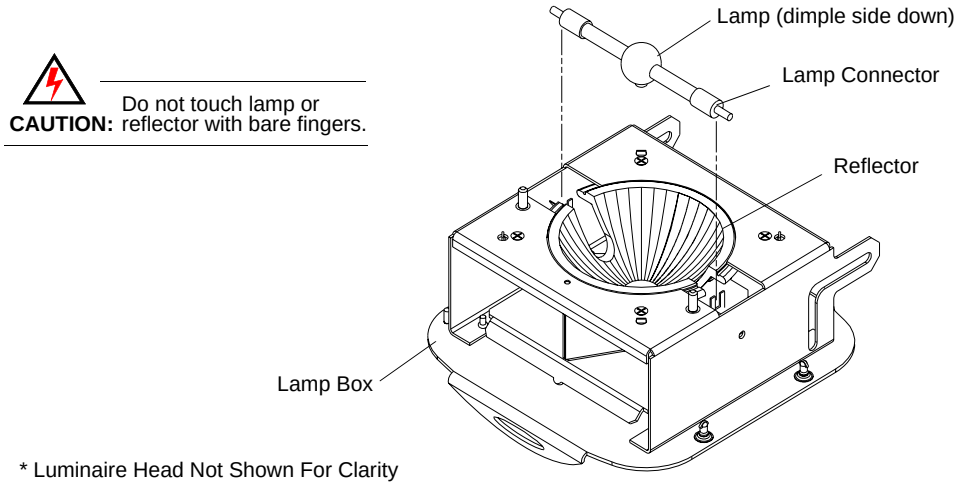

CAUTION: Do not touch lamp or reflector with bare fingers.
Lamp (dimple side down)
Lamp Connector
Reflector
Lamp Box
* Luminaire Head Not Shown For Clarity

Figure 2-1: Lamp Replacement

Align Lamp

The design of the VL3000 luminaire optical system allows for a flat or peaked field. A flat field is one where there is no detectable hot spot and a peaked field is one where the intensity of the beam is greater at the center of the beam than at the perimeter.

After a new lamp is installed, it will be necessary to align the lamp to optimize the beam. Knobs located at the luminaire's backcap will allow adjustment.

WARNING: Backcap and adjustment knobs will be HOT during lamp operation. Wear gloves to prevent burns.

Repair/Replacement Procedure

Step 1. At Menu Display, select Lamp from Test menu. (If using console, set intensity to 100%, open beam size iris and focus for hard edge.)

Note: Allow five minutes for lamp to achieve full temperature/pressure.

Step 2. Position beam on a white wall at a distance of 10 to 20 feet.

Step 3. At backcap, using X, Y, and Z adjustment screws, adjust beam as required.

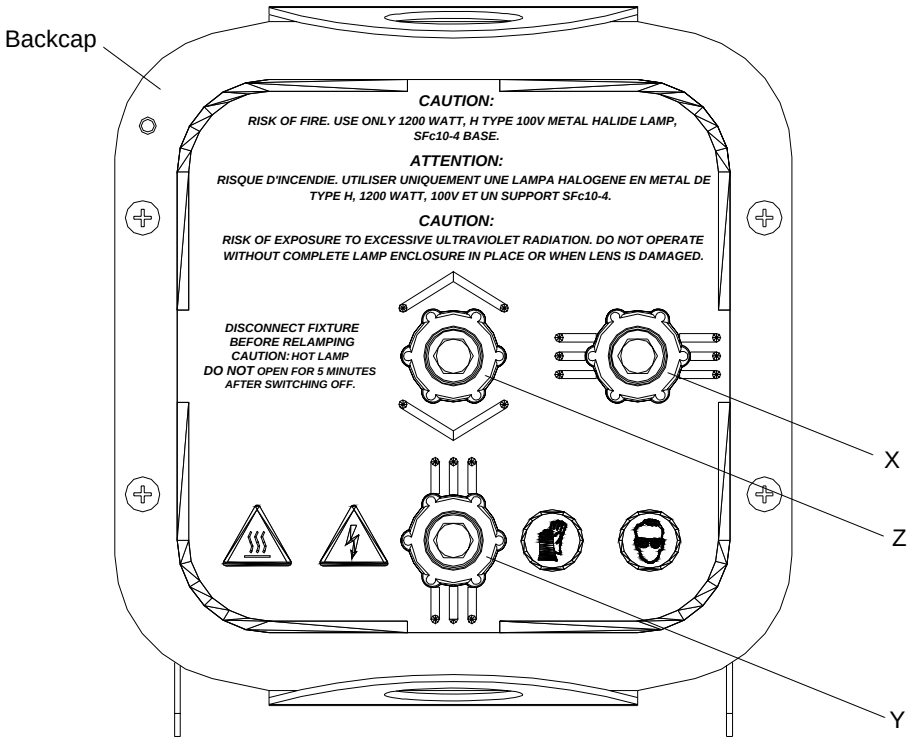

Backcap
CAUTION:
RISK OF FIRE. USE ONLY 1200 WATT, H TYPE 100V METAL HALIDE LAMP, SFc10-4 BASE.
ATTENTION:
RISQUE D'INCENDIE. UTILISER UNIQUEMENT UNE LAMPA HALOGENE EN METAL DE TYPE H, 1200 WATT, 100V ET UN SUPPORT SFc10-4.
CAUTION:
RISK OF EXPOSURE TO EXCESSIVE ULTRAVIOLET RADIATION. DO NOT OPERATE WITHOUT COMPLETE LAMP ENCLOSURE IN PLACE OR WHEN LENS IS DAMAGED.
DISCONNECT FIXTURE BEFORE RELAMPING
CAUTION: HOT LAMP
DO NOT OPEN FOR 5 MINUTES AFTER SWITCHING OFF.
X
Z
Y

Figure 2-2: Lamp Alignment

Lamp Power Cut-Off Switch

The lower fan duct assembly is equipped with a lamp power cut-off switch. If the hinged duct is raised during operation, the relay automatically disengages and the lamp will douse. When the duct is closed, lamp power is restored.

The fan duct assembly is located on the bottom half of the luminaire head as shown below.

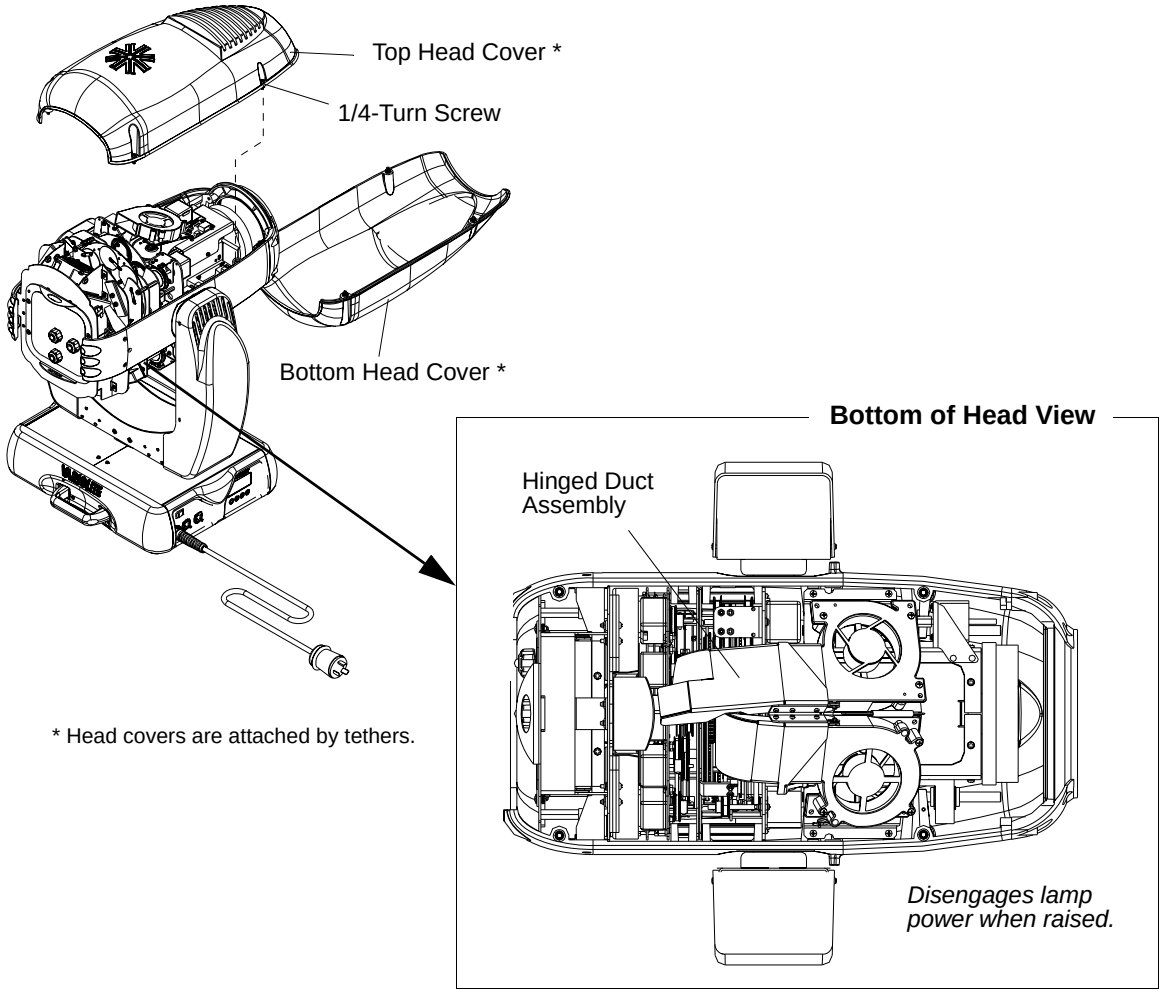

Top Head Cover *
1/4-Turn Screw
Bottom Head Cover *
* Head covers are attached by tethers.
Bottom of Head View
Hinged Duct Assembly
Disengages lamp power when raised.

Figure 2-3: Fan Duct Assembly View

Gobo Replacement

WARNING: Remove power from luminaire before performing maintenance. Gobos can be HOT after operation. Allow to cool before replacing.

WARNING: Users of VARI✻LITE luminaires should not install or use metal gobos. The use of metal gobos in any VARI✻LITE product may damage the luminaire and could void the luminaire's warranty.

Repair/Replacement Procedure

Step 1. Remove power from luminaire.

Step 2. Remove appropriate head cover by loosening four 1/4-turn screws:

a. To access Wheels 1 and 3, remove bottom cover as shown in Figure 2-4.

b. To access Wheel 2, remove top cover as shown in Figure 2-4.

Step 3. If accessing Wheels 1 and 3, also raise hinged fan duct assembly. (Fan duct has a lamp cutoff switch which will disengage power to lamp.)

Step 4. Rotate gobo wheel until required gobo position is accessible.

CAUTION: Do not push on gobo glass. Press on gobo carrier only.

CAUTION: Do not touch gobos with bare fingers. Wear cotton gloves or other covering while replacing. Clean with isopropyl alcohol and soft cloth if required.

Step 5. Remove current gobo by carefully pressing on edges of gobo carrier with fingers, pressing gobo toward front end of luminaire (toward lens), and out of wheel.

Step 6. Install new gobo as follows:

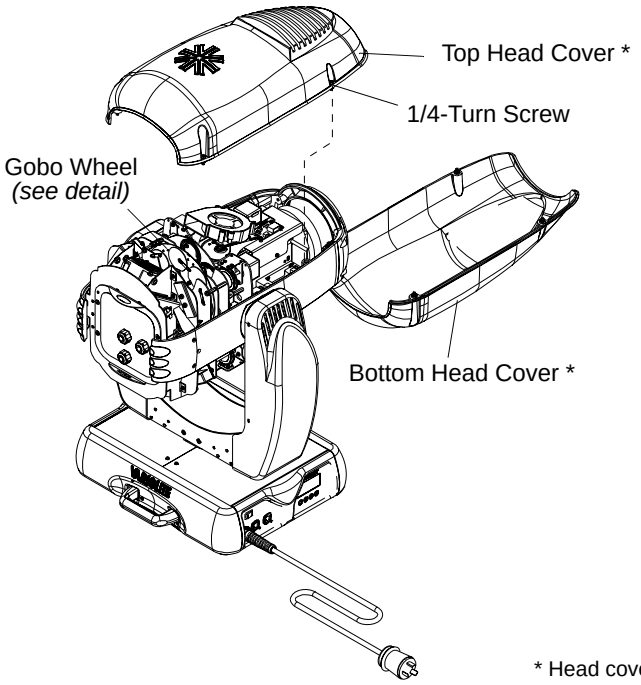
a. Align three tabs on gobo carrier with three notches in wheel (gobo can only be oriented in one direction).

b. Insert gobo carrier into wheel, ensuring that carrier snaps into place.

Step 7. Close fan duct assembly and replace covers.

Note: For standard gobo and gag part numbers, See "Included Items Kit, Spot" on page 70.

Gobo Replacement (continued)



* Head covers are attached by tethers.

CAUTION: Do not touch glass with bare fingers. Press on gobo carrier only.

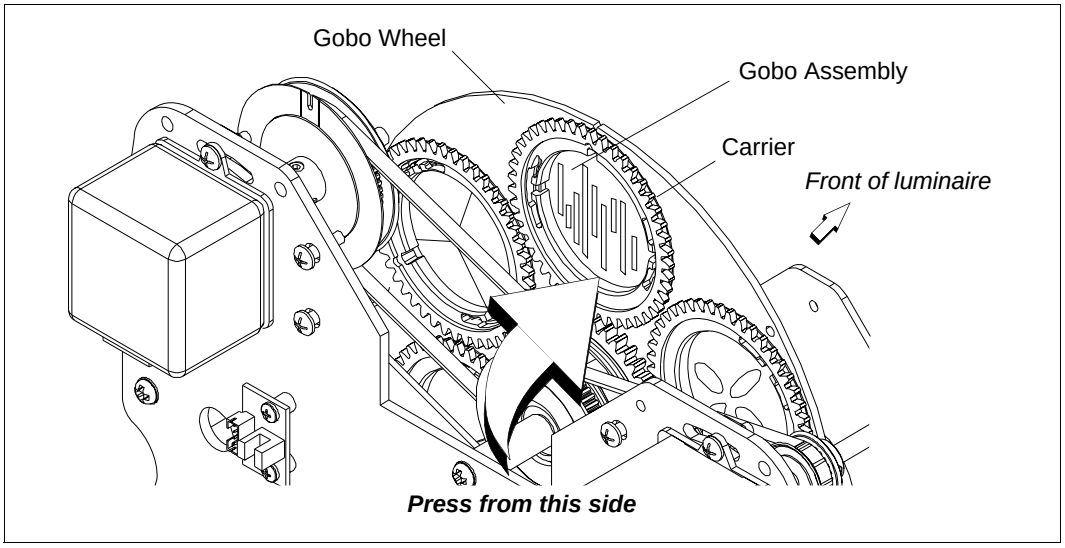


Figure 2-4: Gobo Replacement

Color Filter Replacement

WARNING: Remove power from luminaire before performing maintenance. Filters may be HOT after operation. Allow to cool before replacing.

Repair/Replacement Procedure

Step 1. Remove power from luminaire.

Step 2. Remove top head cover by loosening four 1/4-turn screws as shown in Figure 2-5.

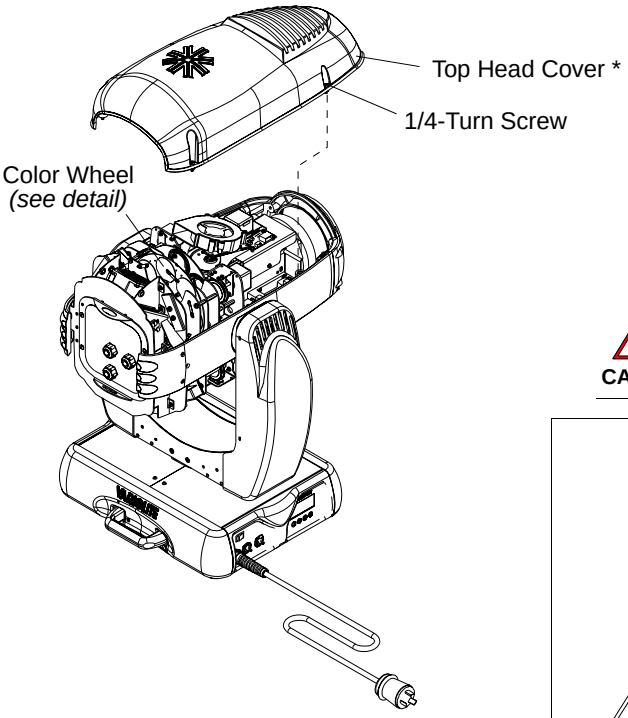
CAUTION: Do not touch filters with bare fingers. Wear cotton gloves or other covering while replacing. Clean with isopropyl alcohol and soft cloth if required.

Step 3. Rotate color wheel until required filter position is accessible.

Step 4. Press spring lock back until color filter is free and remove filter.

Step 5. Install new filter (coated side must be oriented towards lamp) ensuring that it is securely in position.

Step 6. Replace head cover.



* Head covers are attached by tethers.

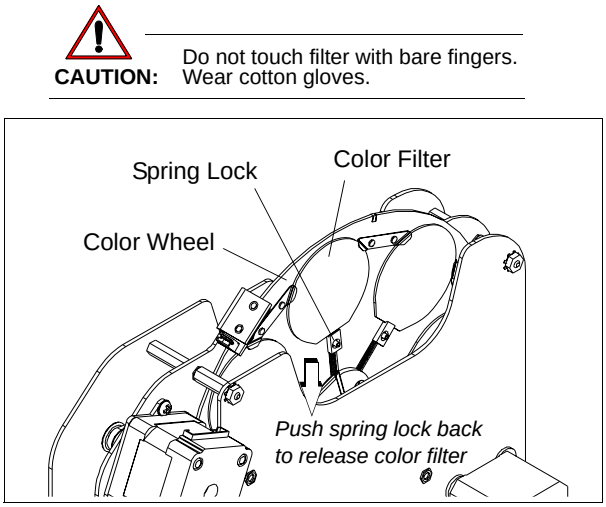


Figure 2-5: Color Filter Replacement

Beam Spreader (Wash Only)

VL Part No: 21.9678.0910

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove both top and bottom head covers by loosening four quarter-turn captive locking screws.

Step 3. Disconnect wiring for transfer fan and color/gobo fans as well as head cable from zoom interconnect PCB.

Step 4. Remove transfer fan (see procedure on page 51).

Step 5. At Beam Spreader, remove eight (four per side) 6-32x3/8" PPZ screws from beam spreader covers and remove covers.

Step 6. Loosen four screws on mounting clamps and remove two clamps (screws are captive and will not come out).

Step 7. At front noise ring of fixture, remove four 10-32x1/2" SCB Allen head screws (using 5/32" Allen Wrench).

Step 8. Lift Beam Spreader assembly up through fixture.

Step 9. Replace by performing steps 2 through 8 in reverse order.

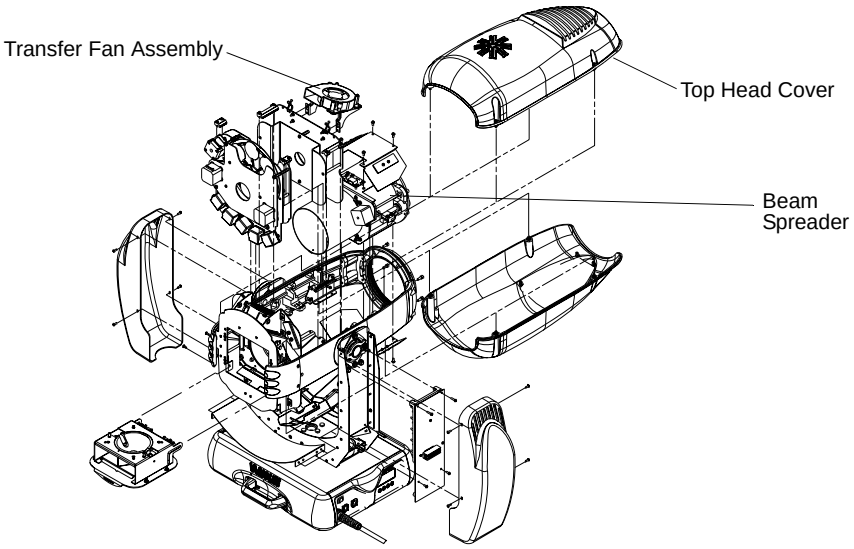


Figure 2-6: VL3000 Wash Beam Spreader Assembly Replacement

Color/Dimmer/Strobe Assembly

VL Part No: 22.9678.0402

VL Part No: 22.9678.0462 (Q Version)

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove top head cover by loosening four 1/4 turn captive stud connectors.

Note: The top cover is easily identified as follows - maneuver head so the printing on the label on the rear of the head assembly is oriented correctly.

Step 3. Disconnect wiring harness from interconnect PCB.

Step 4. Remove interconnect PCB by pushing top of PCB off studs.

Step 5. Loosen four captive screws (two per clamp). (Note: Do NOT remove long phillips head screw, it serves as a handle.)

Step 6. Pull assembly straight up and out of luminaire.

Step 7. Replace assembly by performing steps 2 through 6 in reverse order.

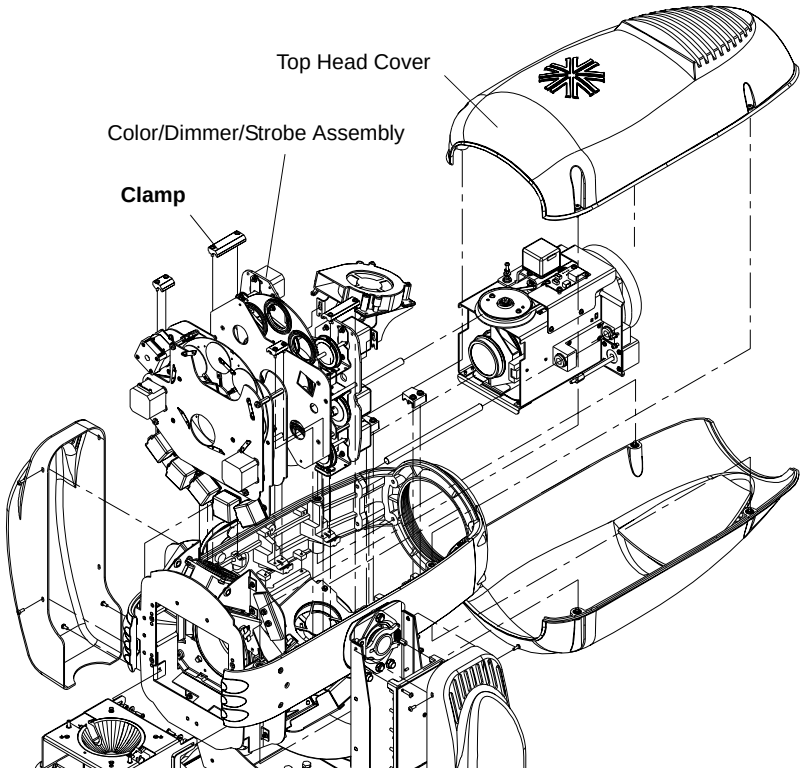


Figure 2-7: VL3000 Color/Dimmer/Strobe Assembly Replacement

Strobe Assembly Replacement

VL Part No: 22.9678.0403

VL Part No: 22.9678.0453 (Q Version)

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove top head cover by loosening four 1/4 turn captive stud connectors.

Step 3. Remove Color/Dimmer/Strobe Assembly. See “Color/Dimmer/Strobe Assembly” on page 25.

Step 4. Disconnect wiring from strobe motors.

Step 5. Cut wire tie holding wiring harness to strobe assembly.

Step 6. Remove four 6-32 KEPS nuts and lift strobe assembly straight up.

Step 7. Replace assembly by performing steps 2 through 6 in reverse order.

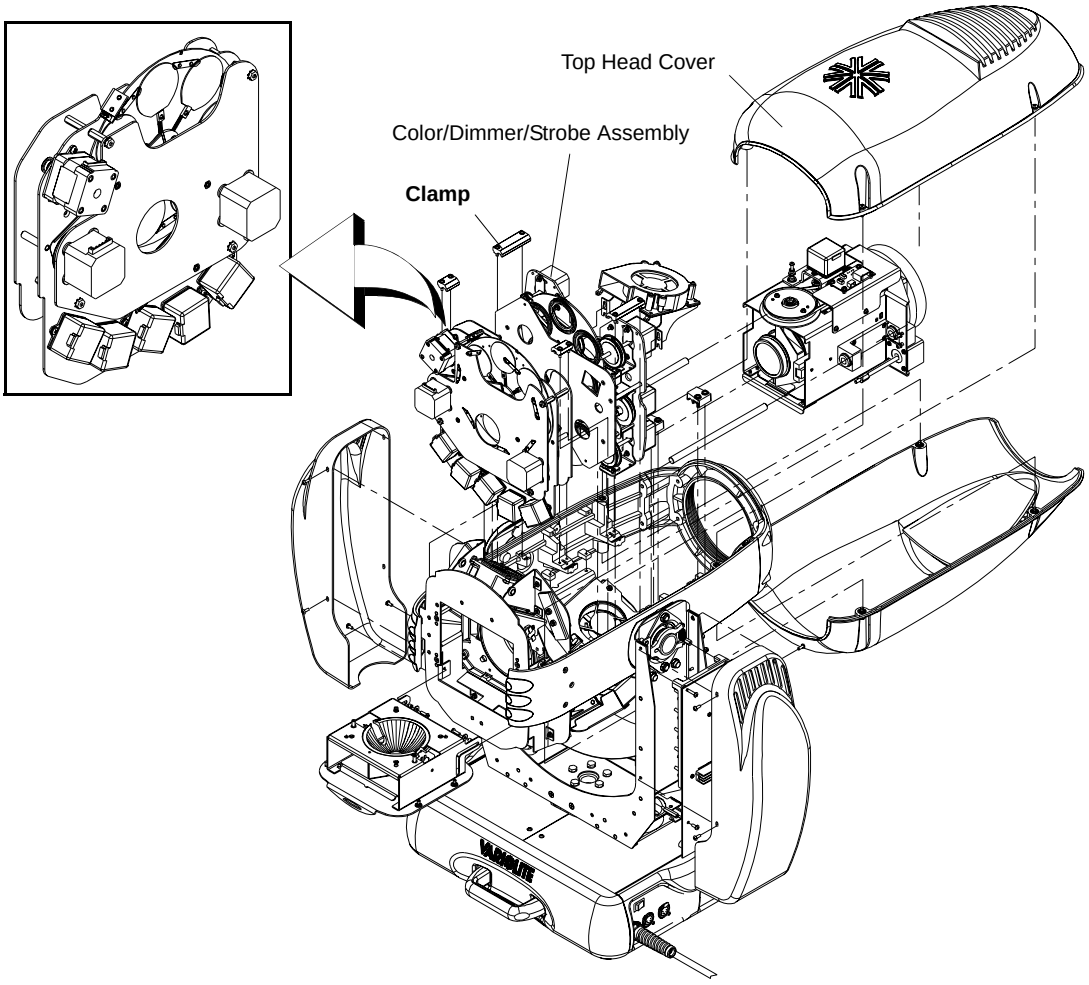


Figure 2-8: VL3000 Color/Dimmer/Strobe Assembly Replacement

Main Control Board (MCB) PCB Replacement

VL Part No: 24.9678.3730

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Note: To determine which yoke leg is which without having to remove the covers, rotate yoke counterclockwise until it stops, then look at the luminaire while facing the input panel. The tilt-side leg is the leg to the left; the board-side leg is the leg to the right.

Step 2. At board-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

CAUTION: Always use anti-static precautions when working with PCBs.

Step 3. Disconnect wiring harness connectors J8, J9, J10 and J11.

Step 4. Remove four (4) 6-32 screws securing MCB PCB

Step 5. Disconnect upper enclosure connectors J1, J2, J3, J4 and J12 at back of MCB.

Step 6. Install replacement assembly by performing Steps 2-5 in reverse order.

Step 7. Configure using menu functions as necessary.

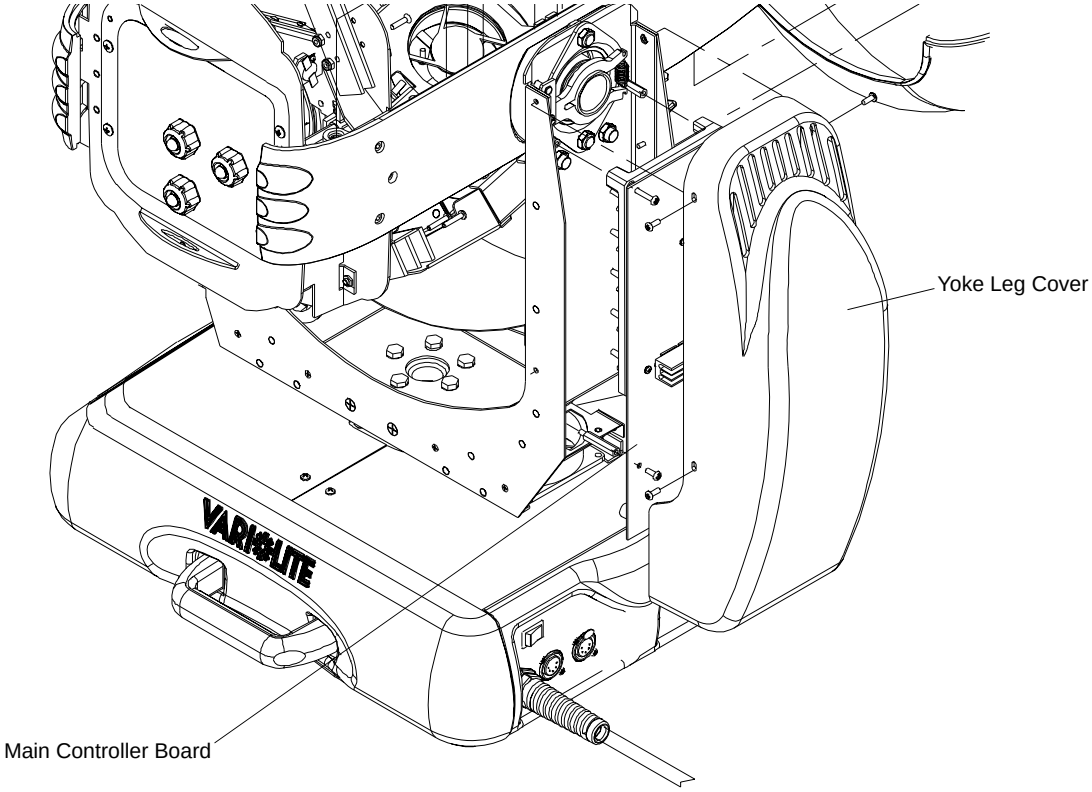


Figure 2-9: VL3000 Main Control Board Replacement

Motor Driver IC Replacement for Socketed MCBs

VL Part No: 85.3773.0002

Repair/Replacement Procedure

Note: To improve reliability, Vari-Lite has introduced main control boards (MCB) with the motor drivers mounted directly on the board. Drivers cannot be replaced on these boards. For boards with sockets, to remove a motor driver IC, you will need a Static-Dissipative PLCC Extractor tool. This tool is available from Stanley Supply & Services (part number: 126-453).

Step 1. Disconnect luminaire AC input cable from power source.

CAUTION: Always use anti-static precautions when working with PCBs.

Step 2. Remove Main Control Board PCB following procedure on page 27.

Step 3. Remove heatsink from Main Control Board PCB. If thermal compound is used, remove and replace with thermal pad (Vari-Lite part number: 10.9678.0885, Thermal Transfer Kit)

Step 4. Using C.K. PLCC extractor tool (see above), replace required stepper motor driver (locations: U27-U30, U32-U44).

Step 5. Reinstall Main Control Board PCB performing Steps 2-6 in reverse order from page 27.

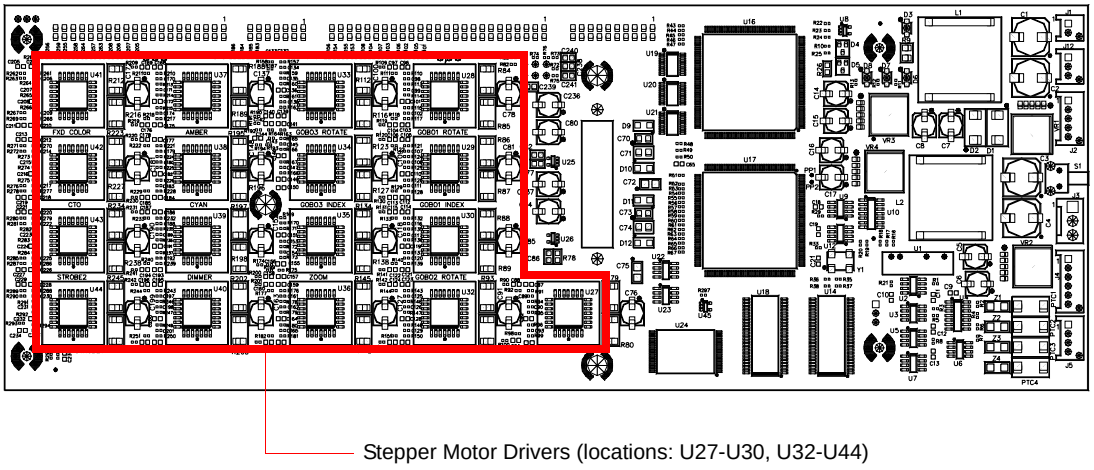


Figure 2-10: VL3000 Series Motor Drivers on Main Control Board

Ignitor Board Replacement

VL Part No: 24.9661.3126

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At tilt-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

CAUTION: Always use anti-static precautions when working with PCBs.

Step 3. Disconnect ignitor PCB wires by removing four screws which secure wire ring terminals to PCB and remove ignitor PCB.

Step 4. Remove four 6-32x3/8"LG PPZ SEMS screws and remove ignitor PCB.

Step 5. Replace by performing steps 2 through 4 in reverse.

Note: Make sure and orient ignitor properly (as shown in Figure 2-11).

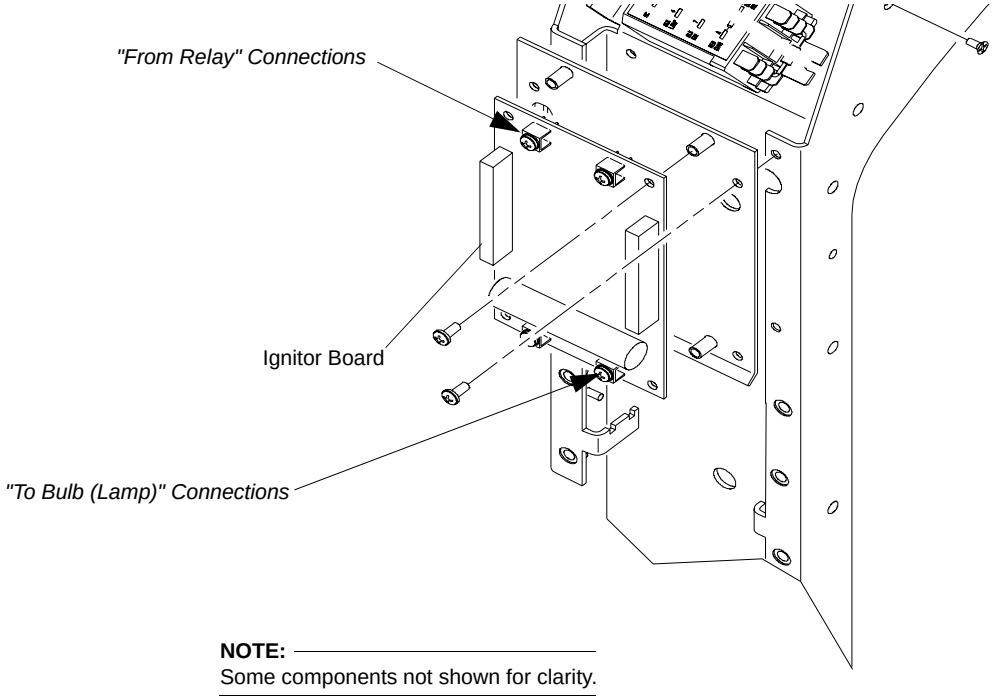


Figure 2-11: VL3000 Ignitor Board Replacement

Pan Motor Assembly/Pan Belt Replacement

VL Part No: 21.9678.0864 (Pan Motor)

VL Part No: 54.2055.0001 (Pan Belt)

Repair/Replacement Procedure (Pan Motor)

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. At each top enclosure cover, remove two 6-32x1/4" PPB screws and remove cover.

Step 4. In each corner from top, remove four 6-32x3/8" PPZ screws.

CAUTION: Be careful not to damage lens during next step.

Step 5. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.

Step 6. At bottom of enclosure, remove four 1/4-20x1/2" socket screws and 1/4" split lock washers and remove ventilation cover.

Step 7. Remove pan motor side handle by removing two 10-32x5/8" PPB screws.

Step 8. At enclosure bottom, remove two 6-32x1/4" PPB screws and pan motor side cover.

Step 9. At side of enclosure, remove two 6-32x3/8" PFZ screws and two 6-32 KEPS nuts that hold two cable saddles. Pull wiring out of way of pan motor.

Step 10. Loosen (but do not remove) four 10-32x3/4" SCB Cap screws.

Step 11. Move pan motor assembly toward pan pulley and remove belt.

Step 12. Remove four 10-32x3/4" SCB Cap screws.

Step 13. Pull assembly out (be mindful of tension springs).

Step 14. Disconnect wiring.

Step 15. Replace by performing steps 3 through 14 in reverse order.

Note: Make sure wiring is not pinched during installation. When tightening four 10-32x3/4" SCB Cap screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.

Repair/Replacement Procedure (Pan Belt)

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. At each top enclosure cover, remove two 6-32x1/4" PPB screws and remove cover.

Step 4. Disconnect the following cable assemblies:

a. Disconnect lamp wire from J202 and J203.

b. Disconnect DC wire from LVS.

c. Disconnect DMX wire from DMX PCB.

d. Disconnect Display wire from Display.

e. Remove ground wire from chassis.

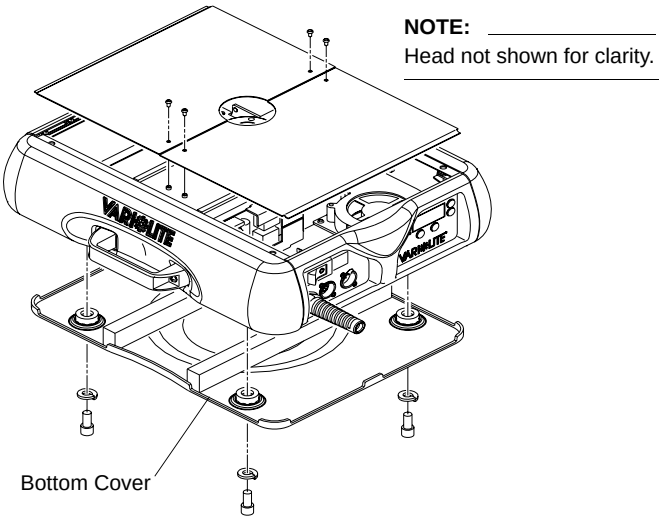
Step 5. Remove pan motor assembly. See “Repair/Replacement Procedure (Pan Motor)” on page 30.

Step 6. Pass wire through routing hole in chassis

Step 7. Remove belt.

Step 8. Replace by performing steps 2 through 7 in reverse.

Note: Make sure wiring is not pinched during installation. When tightening four 10-32x3/4" SCB Cap screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.



Enclosure Bottom View

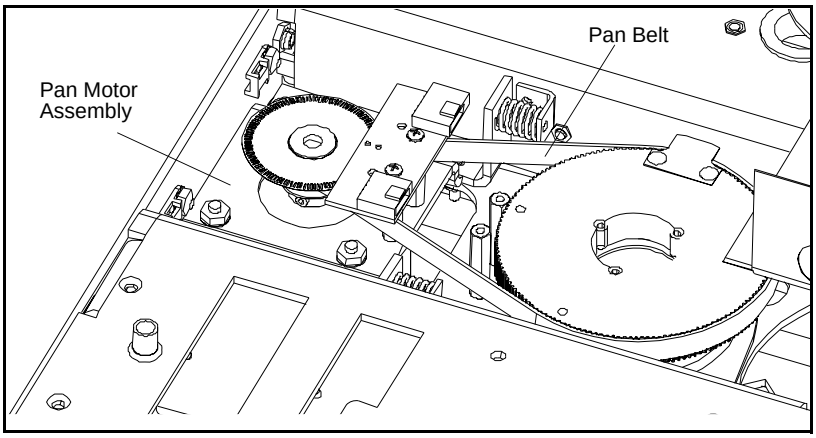


Figure 2-12: VL3000 Pan Motor Assembly Replacement

Pan Encoder PCB Replacement

VL Part No: 24.9678.9729

Repair/Replacement Procedure

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

CAUTION: Be careful not to damage lens during next step.

Step 3. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.

Step 4. At bottom of enclosure, remove four 1/4-20x1/2" socket screws and 1/4" split lock washers and remove ventilation cover.

Step 5. At encoder PCB, remove two 4-40x1/4" PPZ screws.

Step 6. Disconnect wiring from encoder board.

Step 7. Replace by performing steps 3 through 6 in reverse order.

Note: Make sure the encoder disk passes through the optical sensor.

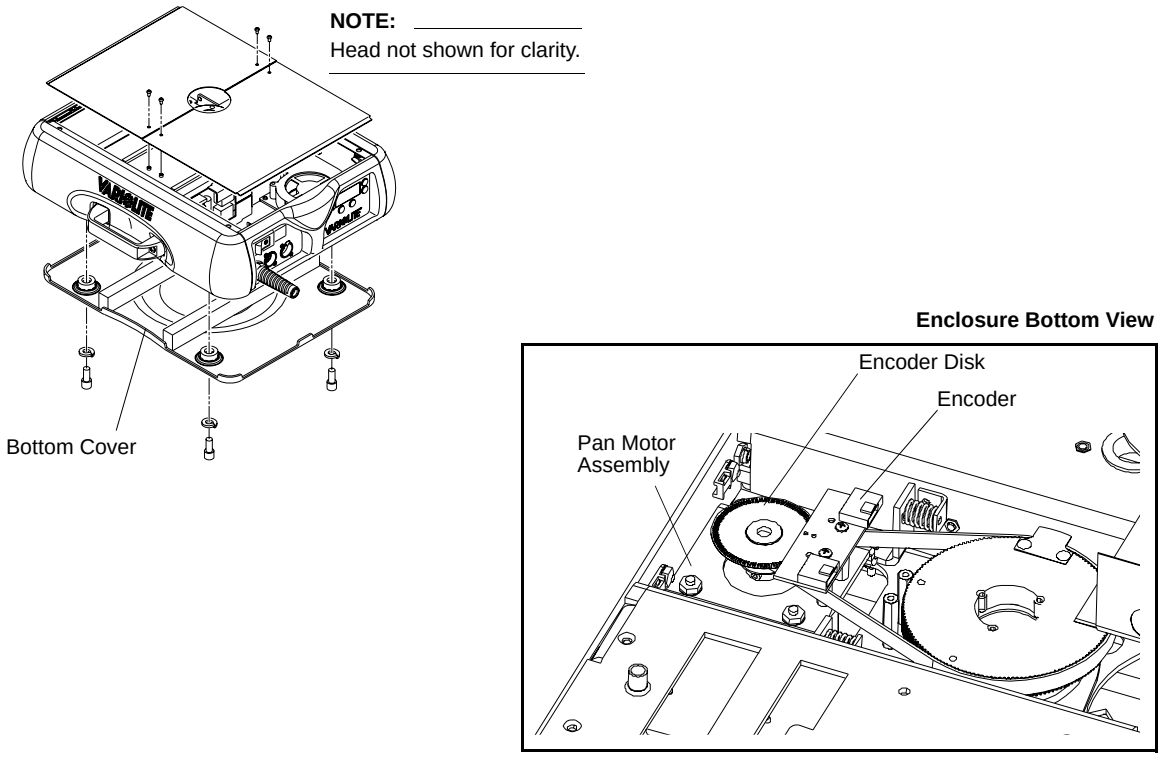


Figure 2-13: VL3000 Pan Encoder PCB Replacement

Pan EOT Sensor Replacement

VL Part No: 23.9678.0687

Repair/Replacement Procedure

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

CAUTION: Be careful not to damage lens during next step.

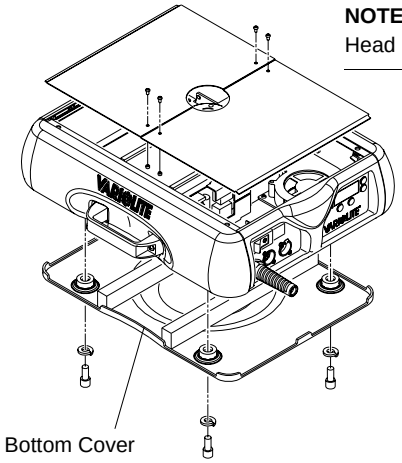
Step 3. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.

Step 4. At bottom of enclosure, remove four 1/4-20x1/2" socket screws and 1/4" split lock washers and remove ventilation cover.

Step 5. At pan sensor, remove two 6-32x3/8" PPZ screws.

Step 6. Disconnect wiring from encoder PCB and remove sensor.

Step 7. Replace sensor by performing steps 3 through 6 in reverse order.



NOTE:
Head not shown for clarity.

Enclosure Bottom View

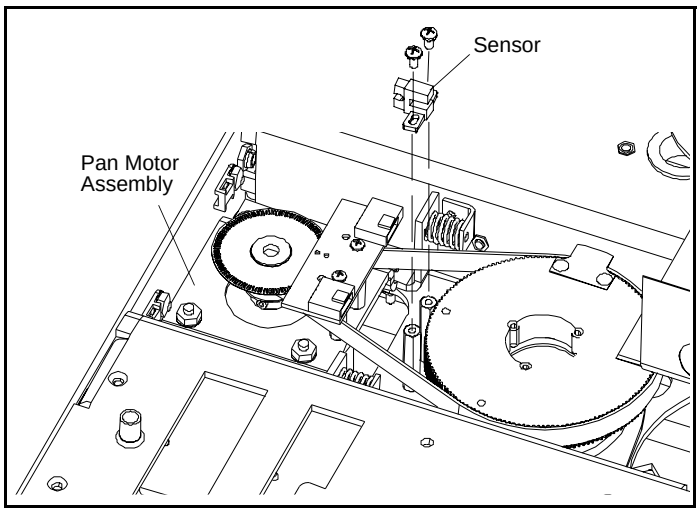


Figure 2-14: VL3000 Pan EOT Sensor Replacement

Low Voltage Power Supply (LVS) Replacement

VL Part No: 69.3177.0151

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At enclosure, remove two 6-32x1/4" LG PPZ screws from display side cover and remove cover.

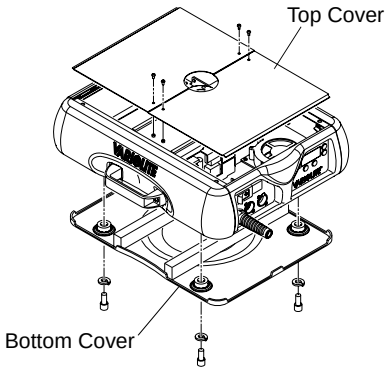
Step 3. At power supply, disconnect wiring:

Location	Connector
N	White AC Wires
L	Black AC Wires
V +	Red DC Wires
V +	Red DC Wires
V -	Black DC Wires
V -	Black DC Wires

Step 4. Remove one 6-32x3/8" LG PPZ screw.

Step 5. Loosen two 6-32x3/8" LG PPZ screws and slide LVS towards upper enclosure fan to remove.

Step 6. Replace by performing steps 2 through 5 in reverse order.



NOTE:
Head not shown for clarity.

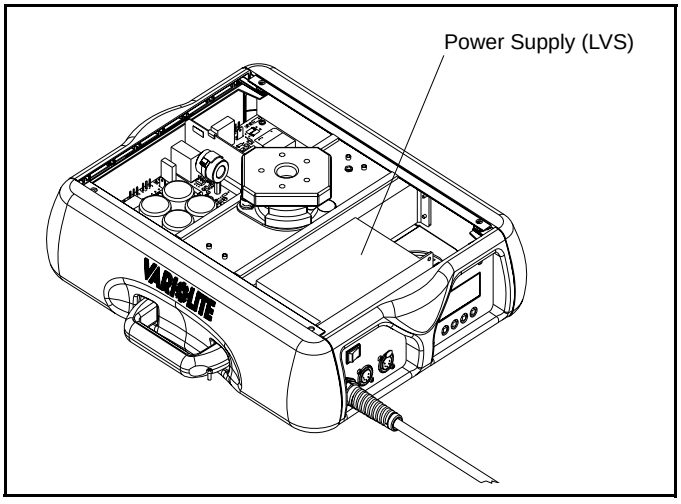


Figure 2-15: VL3000 Power Supply (LVS) Replacement

Gobo Assembly Replacement

VL Part No: 21.9678.0200

Repair/Replacement Procedure

Step 1. Run Edge to full forward position (DMX 255).

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. Remove top head cover by loosening four quarter-turn captive locking screws. Top cover is identifiable as the cover on top when back label is such that words are displayed correct side up.

Step 4. Disconnect head cable from Color Assembly Interconnect PCB, remove wiring from Transfer Fan clips.

Step 5. Disconnect Transfer Fan wiring from Zoom Interconnect PCB.

Step 6. Disconnect head cable from Gobo Assembly Interconnect PCB.

Step 7. At Gobo Assembly clamps, loosen four 6-32 captive screws (two per clamp) and remove clamp. (Note: the large Phillips screw in the middle is used as a handle, DO NOT try to loosen that screw).

Step 8. Pull Gobo Assembly straight out of fixture.

Step 9. Replace by performing steps 3 through 8 in reverse order.

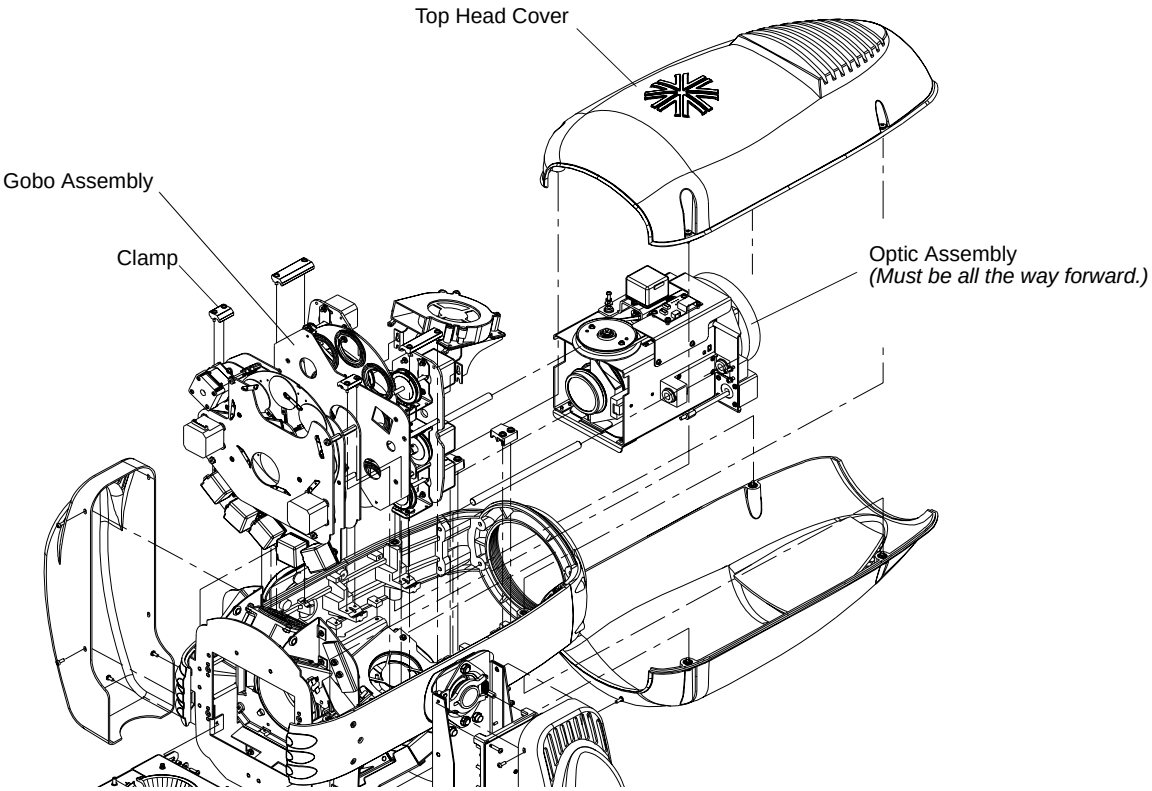
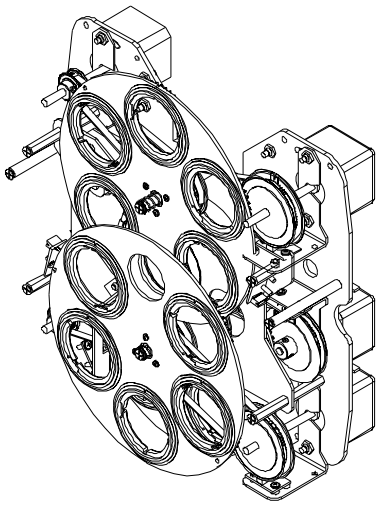


Figure 2-16: VL3000 Spot Gobo Assembly Replacement

Gobo Timing Adjustments

The index timing belt must be aligned so that the mechanism "clocks" properly. This belt is installed around the index gear and top gear of the gobo wheel. The wheel position belt is installed around the wheel position gear and bottom gear of the gobo wheel, and does not require alignment. Each belt is also routed around one pulley.



For the following steps, refer to Figure 2-17.

To time gobo wheels:

Step 1. Position index pulley so that large flange is centered in optical sensor.

Step 2. Insert a 3" long #4 or M3 screw (or 0.125" diameter pin) completely through aligned holes in wheels and both bulkheads as shown. This will lock the wheels in the "open" position.

Step 3. To time Gobo Wheel 1, first align outside planet gear timing mark with notch in wheel. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.

Step 4. To time Gobo Wheel 2, first align outside planet gear timing mark with mark in sun gear. Notch in wheel should be centered between opposite planet gear teeth. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.

Step 5. To time Gobo Wheel 3, first align planet gear timing mark with hole in wheel. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor as shown. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.

Gobo Timing Adjustments (continued)

1) Position index pulley so large flange is centered in optical sensor

2) Insert a 3" long #4 or M3 screw (or 0.125" diameter pin) completely through aligned holes in wheels and both bulkheads as shown. This will lock the wheels in the "open" position.

3) Adjust individual wheels as follows...

Wheel 3

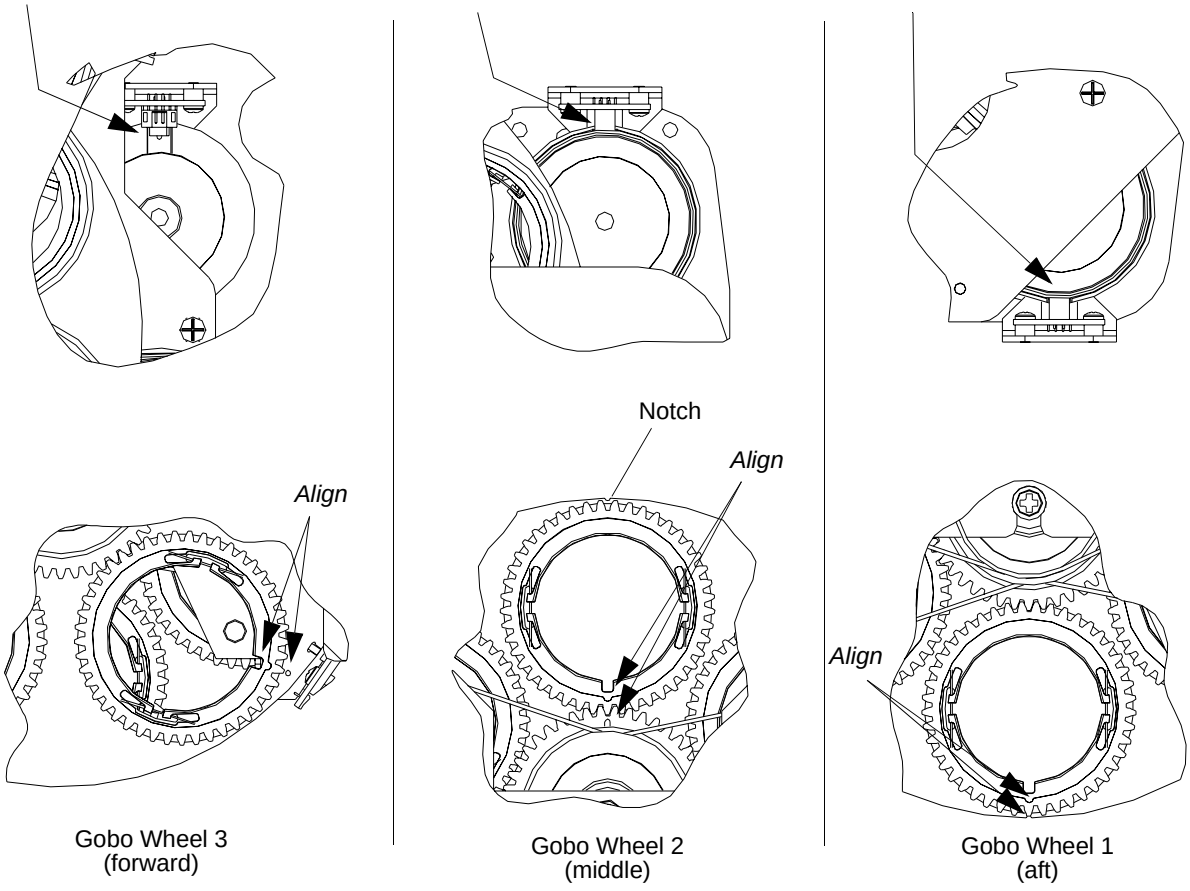
First align planet gear timing mark with hole in wheel. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.

Wheel 2

First align outside planet gear timing mark with mark in sun gear. Notch in wheel should be centered between opposite planet gear teeth. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.

Wheel 1

First align outside planet gear timing mark with notch in wheel. Loosen index belt just enough to slip teeth and rotate index pulley to center slot in optical sensor. Reset tension on belt and verify that pulley slot is still centered in sensor and sensor is centered between two guide marks on pulley flange.



Gobo Wheel 3 (forward)

Gobo Wheel 2 (middle)

Gobo Wheel 1 (aft)

Figure 2-17: Gobo Timing Adjustments

Gobo Gear Planet Alignment

Each gear of the gobo wheel assembly must be aligned so that the gobos will index correctly. Use the following procedure to re-align the gears in the event the gobo wheel is disassembled.

To re-align gobo gears:

Step 1. Place center (sun) gear at starting point so that timing mark is directly facing Position 1 (open) as shown in Figure 2-18.

Step 2. Set Position 6 planet gear as follows:

Step 3. Rotate center gear clockwise until timing mark is directly facing Position 6.

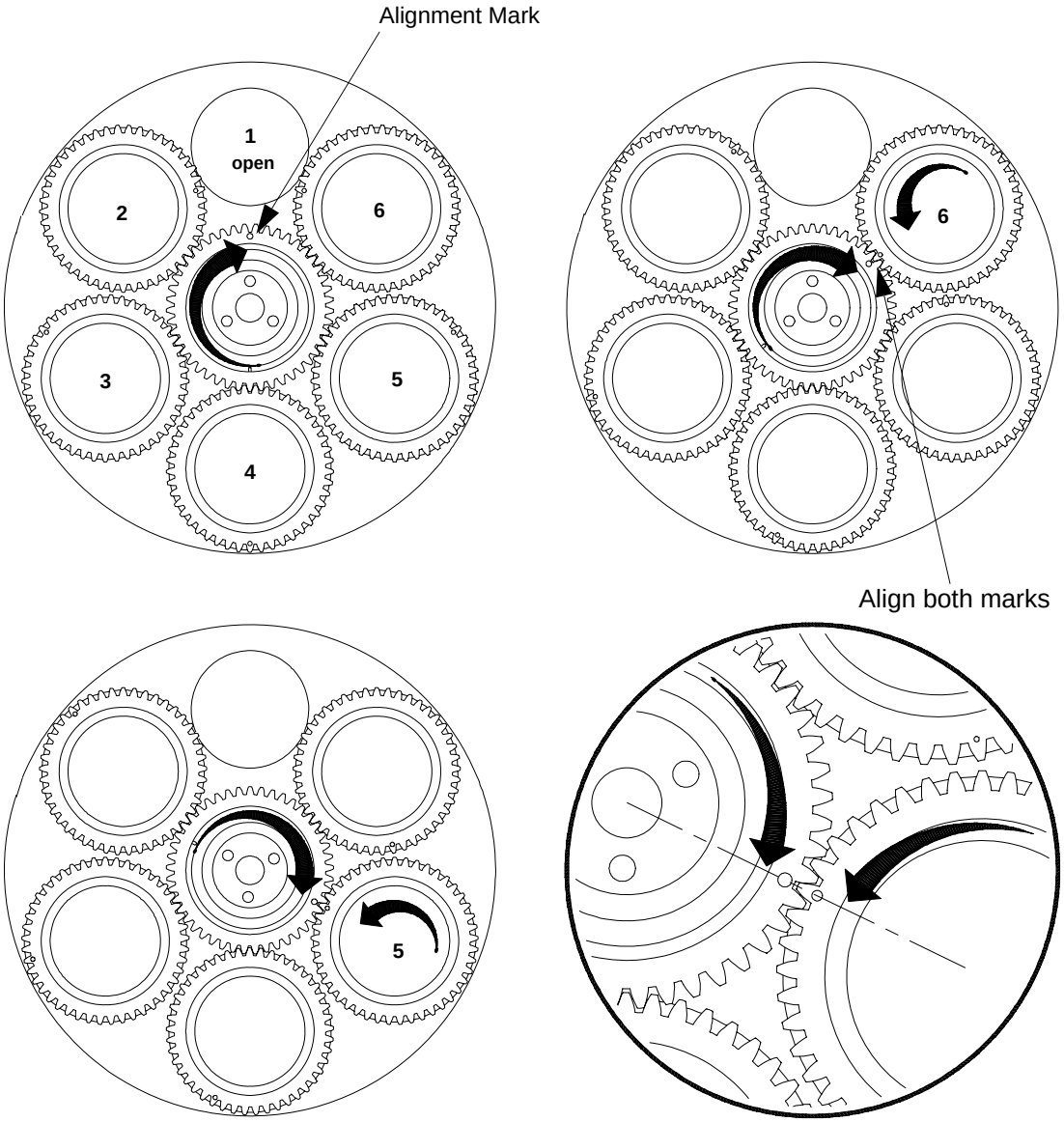
Step 4. Lift edge of center gear slightly (so that it will not turn), while at same time rotating Position 6 gear until timing mark is directly across from center gear timing mark. Lower center gear into place and verify alignment.

Step 5. Set remaining planet gears by following same procedure. When all gears are aligned, rotate center gear in full rotation to verify alignments and to verify that assembly spins freely. When rotating, marks should align perfectly at each gear as they pass. Adjust as necessary and recheck. There should be no drag in the movement.

Gobo Gear Planet Alignment (continued)

1) Start with center gear timing mark facing Position 1 (open).

2) Rotate center gear clockwise until timing mark is directly across from Position 6. Rotate Position 6 gear until timing marks align.



3) Align remaining gobo gears using the same method.

4) Verify alignment of all marks and adjust as necessary.

Figure 2-18: Aligning Gobo Planet Gears

Spot Optic Assembly Replacement

VL Part No: 22.9678.0103

Repair/Replacement Procedure

To remove spot optics assembly:

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove both top and bottom head covers by loosening four quarter-turn captive locking screws.

Step 3. Disconnect wiring for transfer fan and color/gobo fans as well as head cable from zoom interconnect PCB.

Step 4. Remove Gobo Assembly. (See “Gobo Assembly Replacement” on page 35.)

Step 5. Remove one 8-32 Hex Nut from Actuator shaft.

CAUTION: Lens will move freely. Be careful not to drop or damage lens.

Step 6. Loosen 8 captive 6-32 screws from the four mounting clamps (two per clamp).

Step 7. Free Actuator shaft from casting.

Step 8. Remove guide rods from bearings.

Step 9. Carefully pull Optics Assembly from fixture.

To re-install spot optics assembly:

Step 10. Thread Actuator shaft into motor until hex head of shaft touches motor.

Step 11. Insert guide rods into bearings.

Step 12. Carefully place optics assembly back into fixture.

Step 13. Align guide rods to be flush with lamp side bracket.

Step 14. Install but **DO NOT** tighten four mounting clamps. Check alignment of guide rods by sliding optics assembly back and forth. Ensure assembly does not bind.

Step 15. Tighten the actuator motor side clamps **FIRST**. Then tighten opposite side.

Step 16. Check that optics assembly moves freely. If it binds, loosen the mounting clamps and reset guides. Repeat until lens moves freely.

Step 17. Install 8-32 Hex nut on actuator shaft. Tighten just enough to keep from spinning.

Step 18. Manually run optics assembly back and forth to center actuator arm into casting. Then tighten nut.

Step 19. Finish by performing steps 2 through 4 in the removal section in reverse order.

Note: To prevent binding, thread edge screw all the way into linear actuator motor before re-installing. Secure right-side optic assembly clamps first when re-installing.

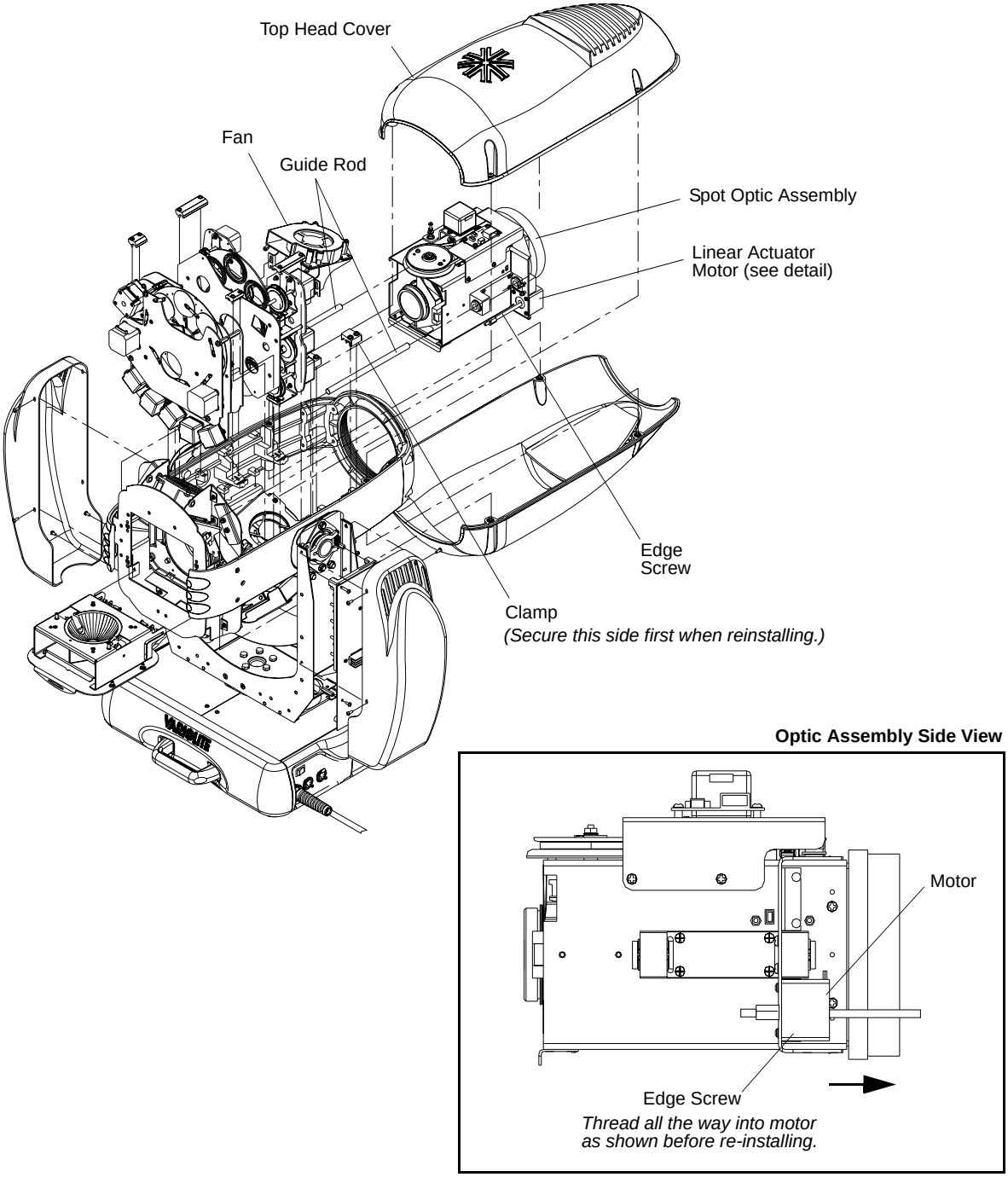


Figure 2-22: VL3000 Spot Optic Assembly Replacement

Tilt Motor Assembly and Tilt Belt Replacement

VL Part No: 21.9678.0765 (Tilt Motor)

VL Part No: 54.2055.0001 (Tilt Belt)

Repair/Replacement Procedure

To remove and replace tilt motor:

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At tilt-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

Step 3. At tilt motor assembly, loosen four 10-32x1/2" PPZ screws.

Step 4. Remove belt from tilt pulley.

Step 5. Remove four 10-32x1/2" PPZ screws. Be mindful of tensioning springs.

Step 6. Disconnect wiring and remove tilt assembly.

Step 7. Replace by performing steps 2 through 6 in reverse order.

Note: Make sure wiring is not pinched during installation. When tightening four 10-32x1/2" PPZ screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.

To remove and replace tilt motor belt:

Step 8. Disconnect luminaire AC input cable from power source.

Step 9. At tilt-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

Step 10. At tilt motor assembly, loosen four 10-32x1/2" PPZ screws.

Step 11. Remove belt from tilt pulley.

Step 12. Remove four 10-32x1/2" PPZ screws. Be mindful of tensioning springs.

Step 13. Disconnect the following wiring and remove tilt assembly:

a. Disconnect lamp wire from ignitor.

b. Remove ignitor assembly mounting bracket (leave ignitor attached to bracket) by removing three 6-32x3/8" PPZ screws and 1/4" standoff.

c. Disconnect ground wire from stud using 3/8" nut driver.

d. At interconnect, disconnect 80MM fan wiring.

Step 14. Remove belt.

Step 15. Replace by performing steps 2 through 7 in reverse order.

- See next page for further instructions -

Tilt Motor Assembly and Tilt Belt Replacement (continued)

WARNING: Make sure wiring is not pinched during installation. When tightening four 10-32x1/2" PPZ screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.

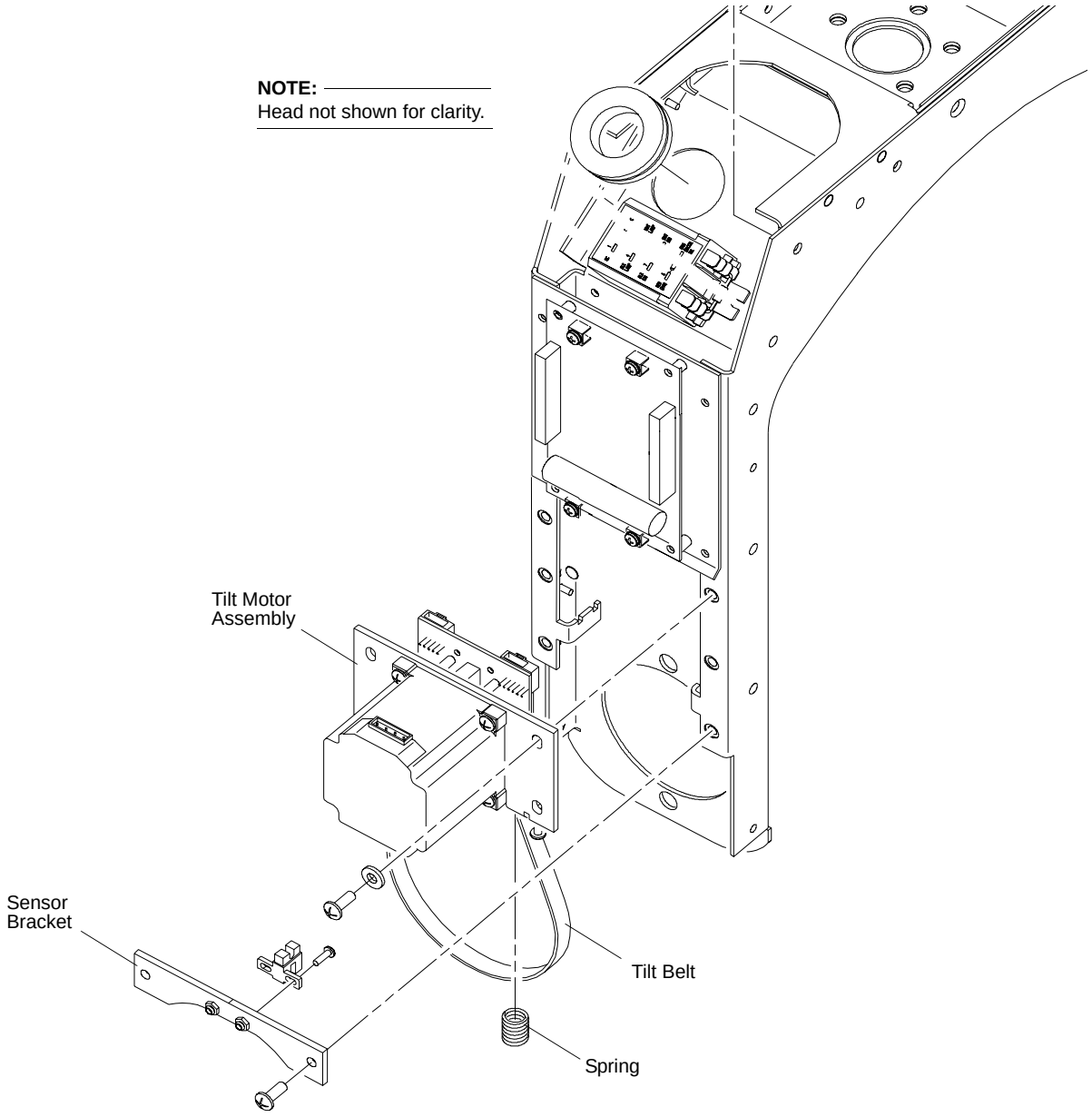


Figure 2-23: VL3000 Tilt Motor Assembly Replacement

Tilt Encoder PCB Replacement

VL Part No: 24.9661.9629

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At tilt-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

Step 3. At tilt motor assembly, loosen four 10-32x1/2" PPZ screws.

Step 4. Remove belt from tilt pulley.

Step 5. Remove four 10-32x1/2" PPZ screws. Be mindful of tensioning springs.

Step 6. Disconnect wiring and remove tilt assembly.

Step 7. On tilt assembly, remove two 4-40x1/4" LG PPZ screws and remove encoder PCB.

Step 8. Replace by performing steps 2 through 7 in reverse order.

Note: Make sure encoder disk passes through sensor when installing encoder PCB and wiring is not pinched during installation. When tightening four 10-32x1/2" PPZ screws that mount Pan Motor Assembly, you must tighten in a CLOCKWISE pattern starting with screw in lower left-hand side from spring.

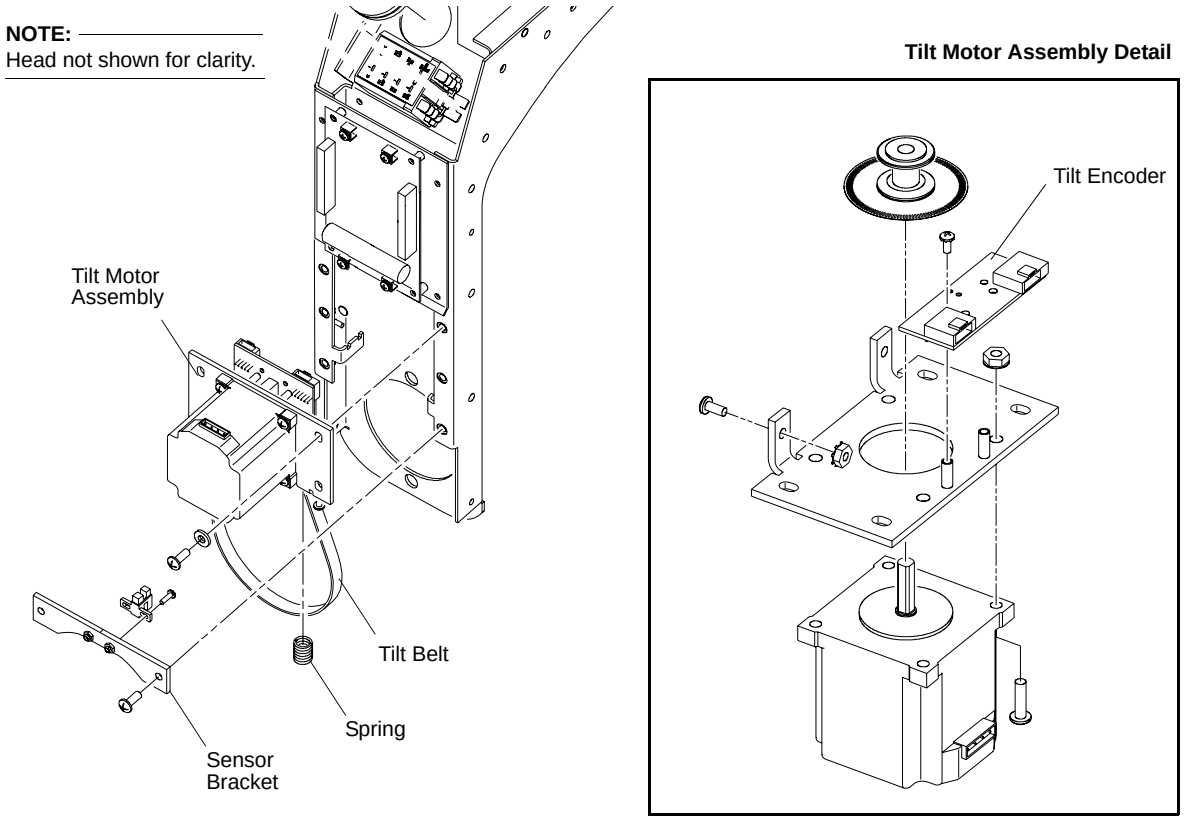


Figure 2-24: VL3000 Tilt Encoder PCB Replacement

Tilt EOT Sensor Replacement

VL Part No: 23.9661.1253

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At tilt-side leg, remove yoke leg cover by removing four 6-32x3/8" PTB screws.

Step 3. At sensor bracket, remove two 10-32x1/2" PPZ screws and remove bracket.

Step 4. Disconnect wiring from Tilt Encoder PCB.

Step 5. At sensor, remove two 6-32x3/8" PPZ screws and remove sensor from bracket.

Step 6. Replace by performing steps 2 through 5 in reverse order.

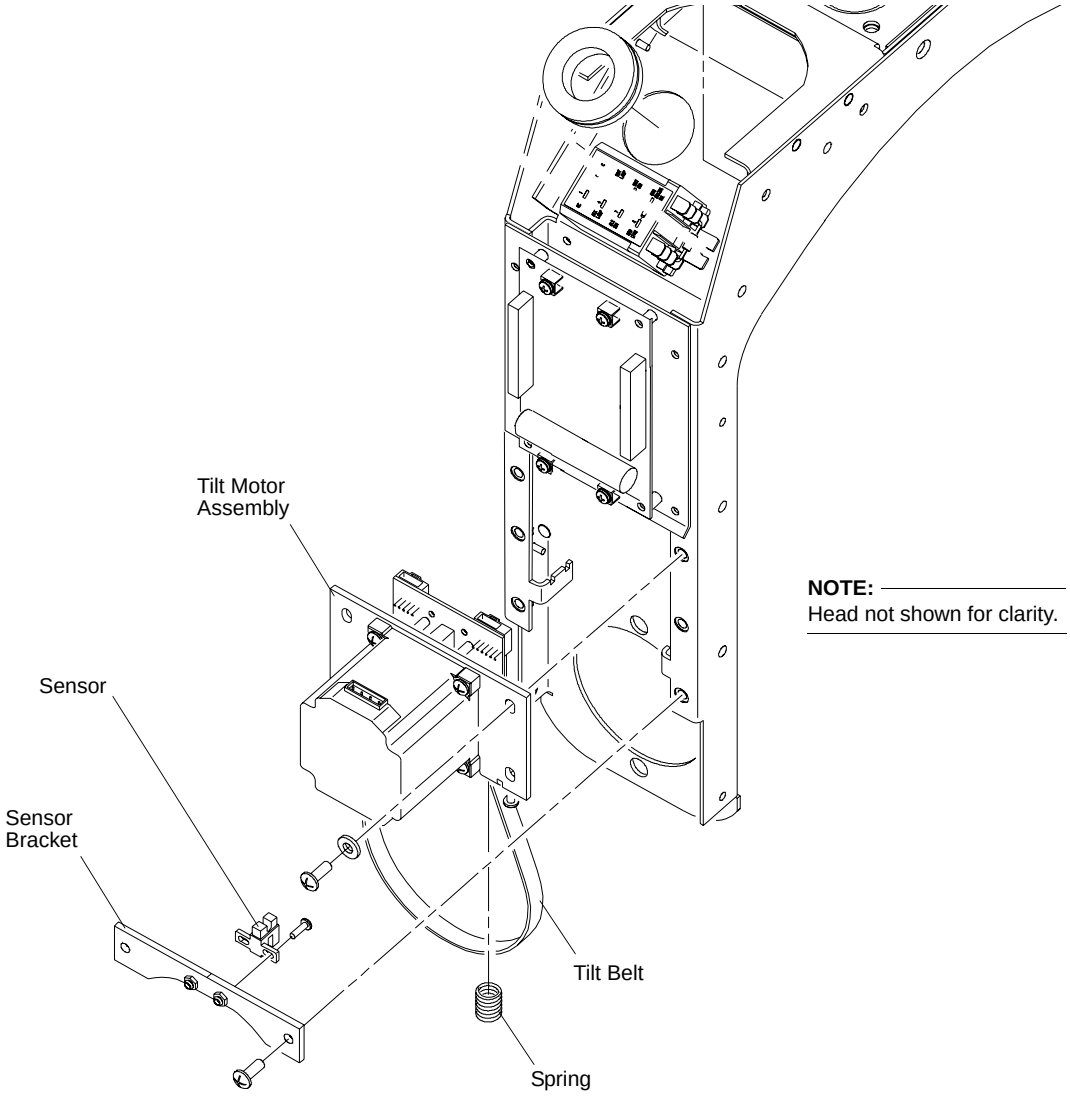


Figure 2-25: VL3000 Tilt EOT Sensor Replacement

Ballast Assembly Replacement

VL Part No: 23.9678.1269 (Old Style)

VL Part No: 12.9678.1862 (New Style)

Note: Vari-Lite offers a conversion kit for converting old-style ballasts to new-style ballasts. For information on the kit (VL Part No: 28.9678.0100), see Technical Bulletin S3K-014, "Series 3000™ New-Style Ballast Conversion Procedure" available on the Vari-Lite Tech Center website.

Repair/Replacement Procedure (Old Style Ballast)

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. At each top enclosure cover, remove two 6-32x1/4" PPB screws and remove cover.

Step 4. In each corner from top, remove four 6-32x3/8" PPZ screws.

CAUTION: Be careful not to damage lens during next step.

Step 5. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.

Step 6. At bottom of enclosure, remove four 1/4-20 x 1/2" socket screws and 1/4" split lock washers and remove ventilation cover.

Step 7. Remove both handles by removing two 10-32x5/8" PPB screws at each.

Step 8. At enclosure bottom, remove four 6-32x1/4" PPB screws and both side covers.

Step 9. At enclosure bottom, remove two 6-32x3/8" PPB screws, APS side bracket and front cover from ballast side.

Step 10. At ballast, disconnect wiring:

Step 11. Pull wires through ferrite core.

Step 12. At bottom of enclosure, remove three 8-32x3/8" PFZ screws and two 8/32x3/8" PPZ screws which secure ballast module to enclosure.

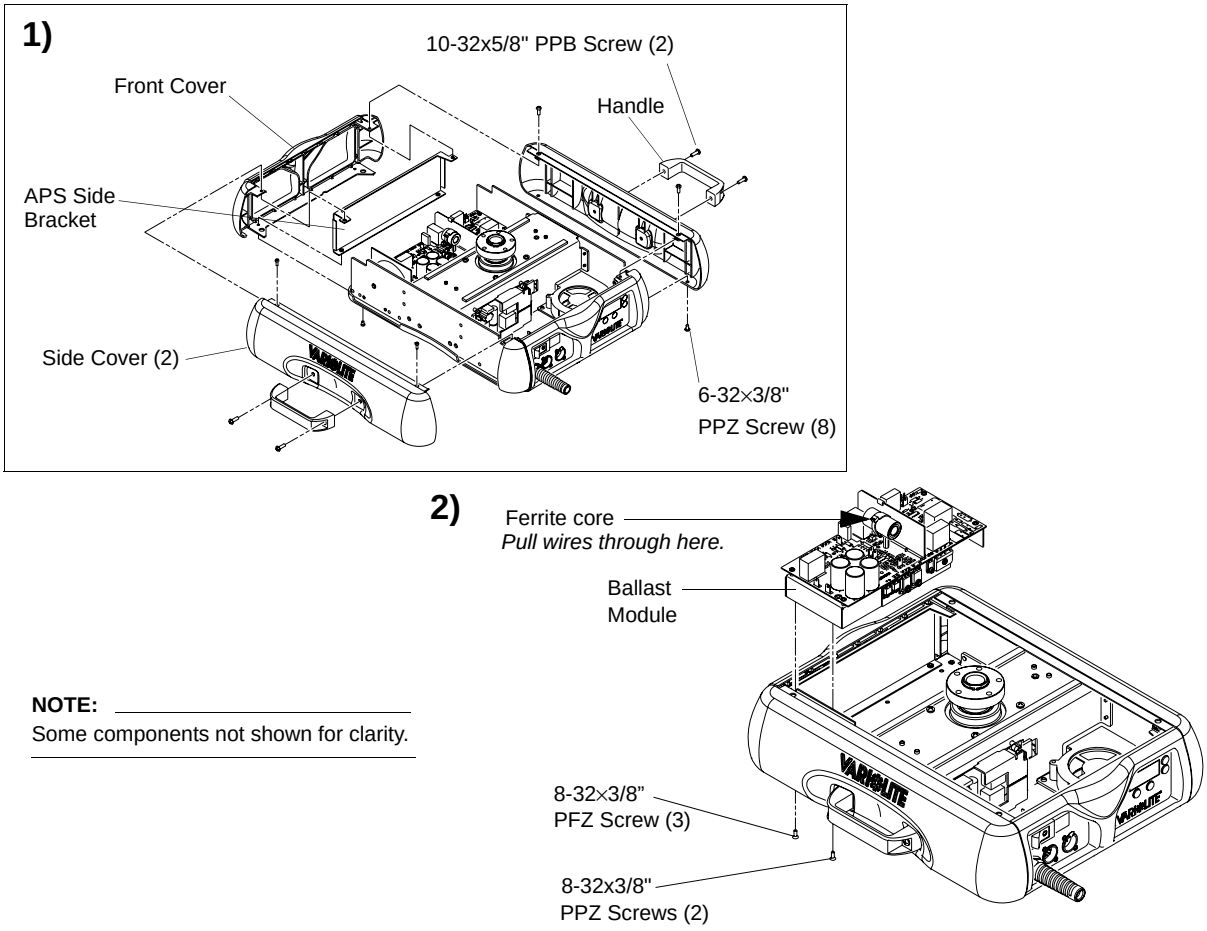
Step 13. Remove ballast module.

Step 14. Install replacement assembly by performing Steps 2-13 in reverse order.

- Refer to figure and table on page 47 -

Table 3: VL3000 Ballast Connector Locations

Location	Connector
J102	2-Pos Connector
J103	3-Pos Mate N Lok
J108	Red 1+ (Choke)
J109	Dark Blue 2– (Choke)
J110	Orange 3+ (Choke)
J111	Orange 4– (Choke)
J112	8-Pos MTA
J113	3-Pos MTA
J202	Lamp Wires (Black)
J203	Lamp Wires (White)
J204	Light Blue (Choke)
J205	Red (Choke)



NOTE:
Some components not shown for clarity.

Figure 2-26: VL3000 Ballast Assembly Replacement

- See next page for instructions on the new style ballast -

Repair/Replacement Procedure (New Style Ballast)

Step 1. Using console or internal menus, run lens as far to the rear as possible.

Step 2. Disconnect luminaire AC input cable from power source.

Step 3. At each top enclosure cover, remove two 6-32x1/4" PPB screws and remove cover.

Step 4. In each corner from top, remove four 6-32x3/8" PPZ screws.

CAUTION: Be careful not to damage lens during next step.

Step 5. Carefully lay luminaire on its side, ensuring that lens does not come into contact with any surface.

Step 6. At bottom of enclosure, remove four 1/4-20x1/2" socket screws and 1/4" split lock washers and remove ventilation cover (as shown in Figure 2-26 on page 47).

Step 7. Remove both handles by removing two 10-32x5/8" PPB screws at each.

Step 8. At enclosure bottom, remove four 6-32x1/4" PPB screws and both side covers.

Step 9. At enclosure bottom, remove two 6-32x3/8" PPB screws, APS side bracket and front cover from ballast side.

Step 10. At ballast, disconnect the following cable assemblies:

a. Lamp wires

b. AC input

c. Control wiring

Step 11. Pull lamp wires through ferrite core.

Step 12. At bottom of enclosure, remove three 8-32x3/8" PFZ screws and four 8/32x3/8" PPZ screws which secure ballast module to enclosure.

Step 13. Remove ballast module.

Step 14. Install replacement assembly by performing Steps 2-13 in reverse order.

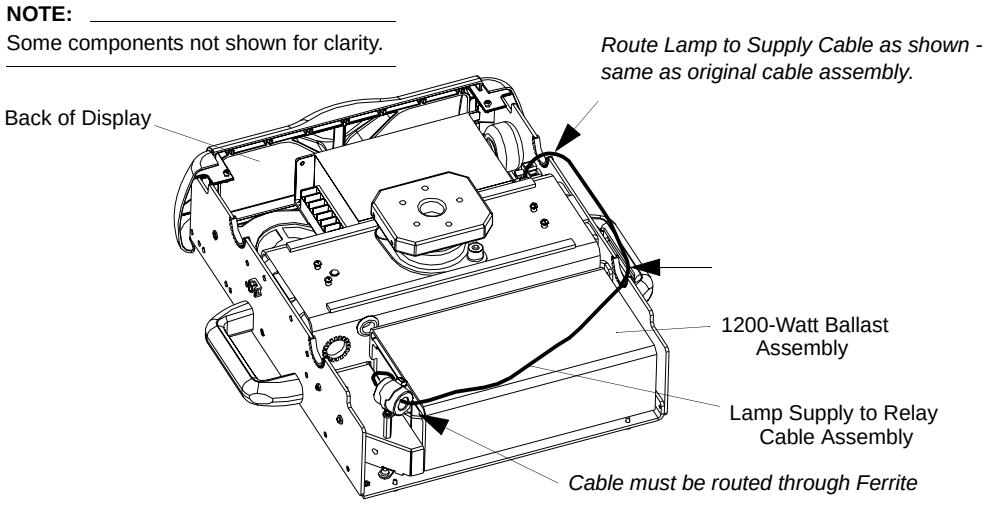

NOTE:
Some components not shown for clarity.
Route Lamp to Supply Cable as shown - same as original cable assembly.
Back of Display
1200-Watt Ballast Assembly
Lamp Supply to Relay Cable Assembly
Cable must be routed through Ferrite

Figure 2-27: VL3000 Ballast Replacement (New Style)

80MM Fan Replacement

VL Part No: 21.9678.0619

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove top head cover by loosening four quarter-turn captive locking screws. Top cover is identifiable as the cover on top when back label is such that words are displayed correct side up.

Step 3. At 80MM fan, remove three 6-32 x 1/2" SCZ Allen screws and one 6-32 x 3/8" SCB Allen screw.

Step 4. Disconnect wiring from 80MM fan.

Step 5. Replace by performing steps 2 through 4 in reverse order.

Note: Be sure and orient fan properly, air should flow TOWARDS lamp.

- Refer to the next page for further instructions -

80MM Fan Replacement (continued)

Note: Fixtures manufactured before 02/17/05 do NOT have a heat shield installed between the 80MM fan and the lamp house.

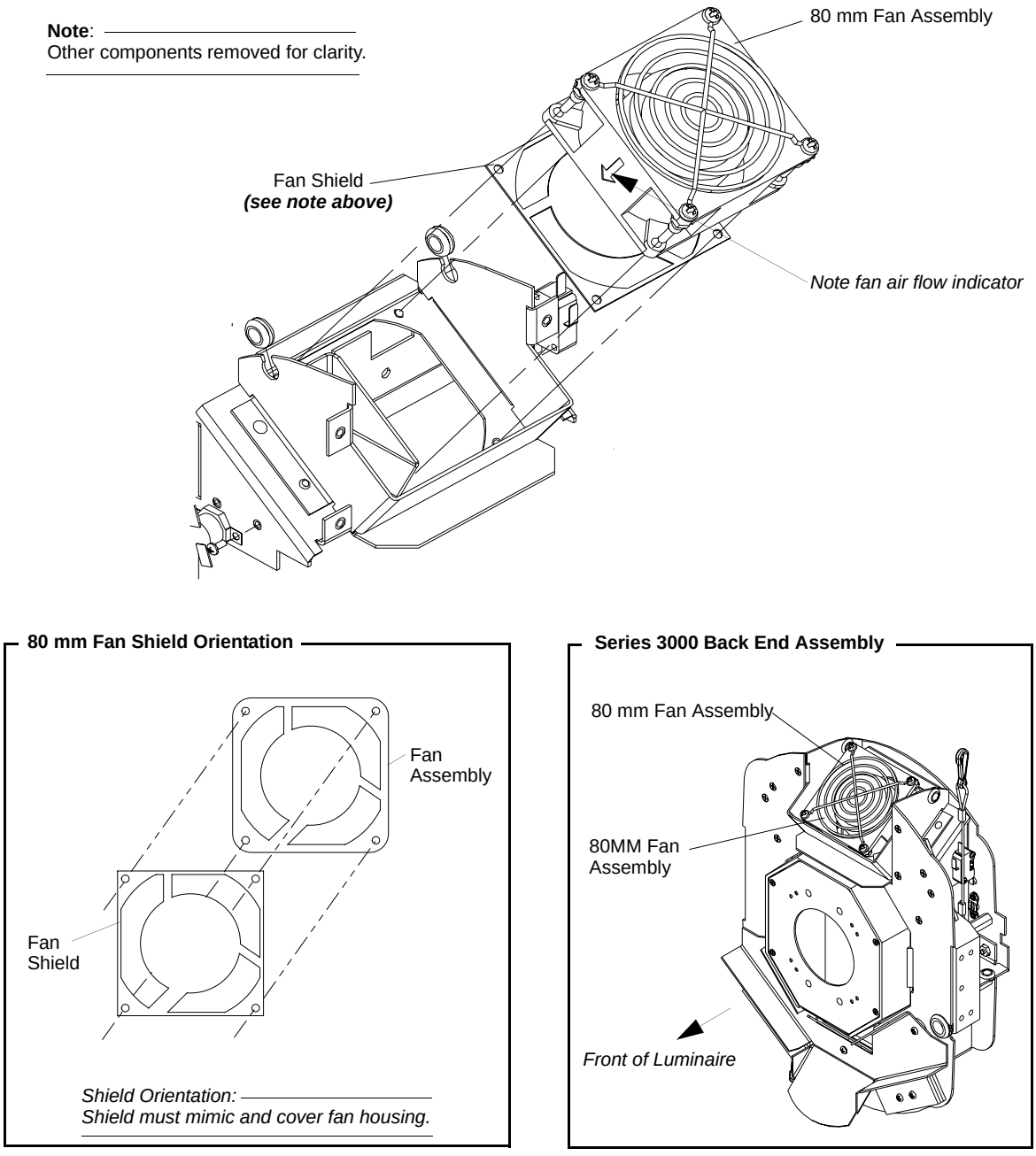


Figure 2-28: VL3000 80MM Fan Replacement

Transfer Fan Assembly Replacement

VL Part No: 21.9678.0678.01 (Spot)

VL Part No: 21.9678.0678.02 (Wash)

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove top head cover by loosening four quarter-turn captive locking screws. Top cover is identifiable as the cover on top when back label is such that words are displayed correct side up.

Step 3. Disconnect transfer fan wiring from zoom interconnect PCB.

Step 4. At transfer fan assembly, loosen four 6-32 x 3/8" PPZ screws and slide assembly off Gobo assembly.

Step 5. Replace by performing steps 2 through 4 in reverse order.

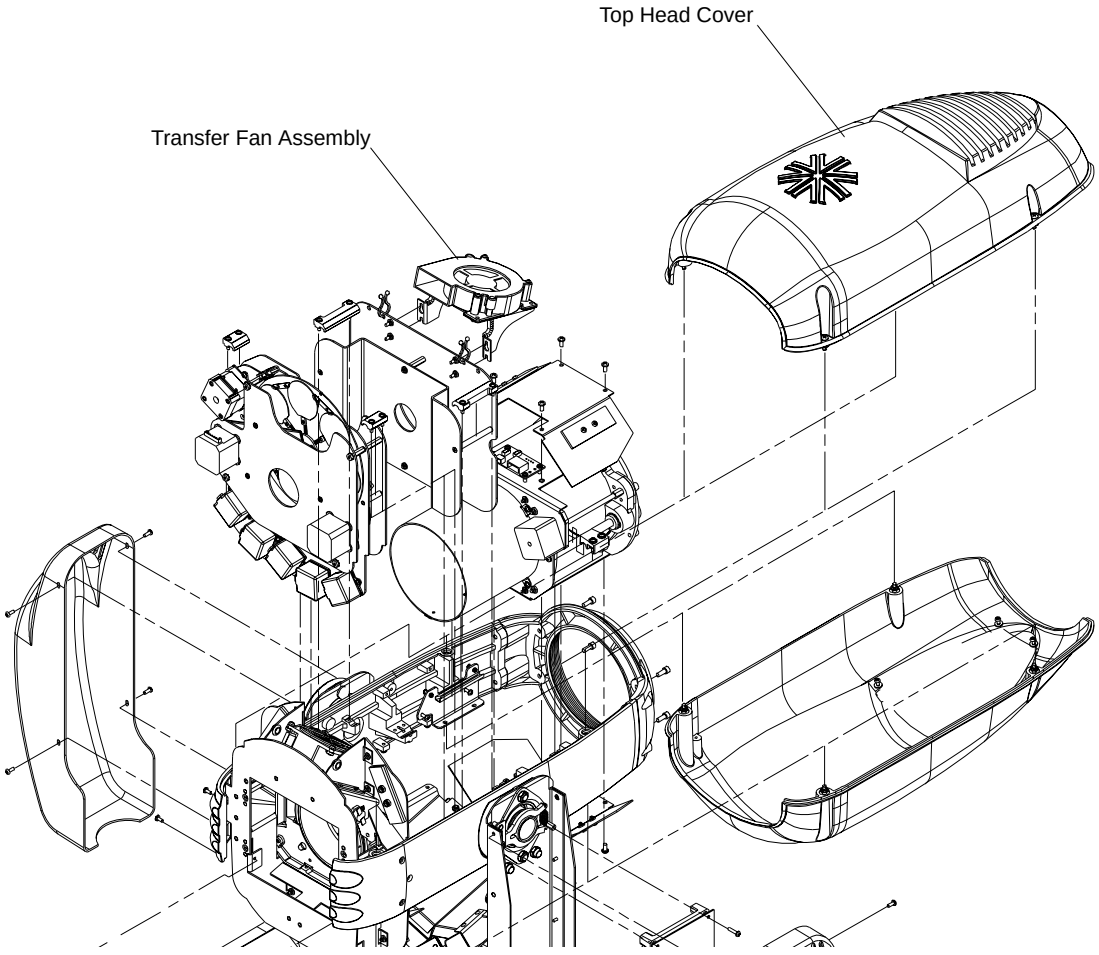


Figure 2-17: VL3000 Transfer Fan Assembly Replacement

Gobo/Color (Dual) Fan Assembly Replacement

VL Part No: 21.9678.0659.01

VL Part No: 21.9678.0660.01

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove both top and bottom head cover by loosening four quarter-turn captive locking screws.

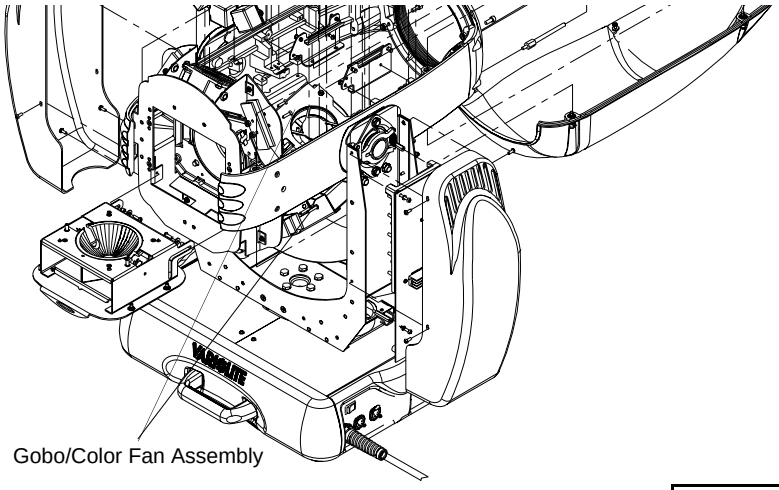
Step 3. Disconnect fan wiring from zoom interconnect pcb.

Step 4. At fan duct micro-switch, remove two 4-40x5/8" PPZ screws and remove micro-switch.

Step 5. At Fan assembly, remove four 6-32x3/8" PPZ screws and remove fan assembly.

Step 6. Replace by performing steps 2 through 5 in reverse order.

Note: Some early-production wash fixtures only have one fan mounted to dual fan assembly. All current production fixtures have two fans.



Gobo/Color Fan Assembly

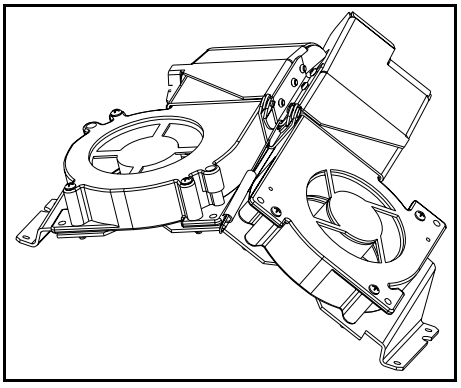


Figure 2-18: VL3000 Gobo/Color (Dual) Fan Assembly Replacement

Yoke Fan Assembly (x2) Replacement

VL Part No: 22.9661.0609

VL Part No: 22.9678.0609 (Q Version)

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. Remove yoke cover from side with fan being replaced by removing four 6-32 x 3/8" PTB screws.

Step 3. Disconnect wiring from fan.

Step 4. Remove four 4-40x1/4" PFSS screws (two per side of yoke) and remove fan.

Step 5. Replace by performing steps 2 through 4 in reverse order.

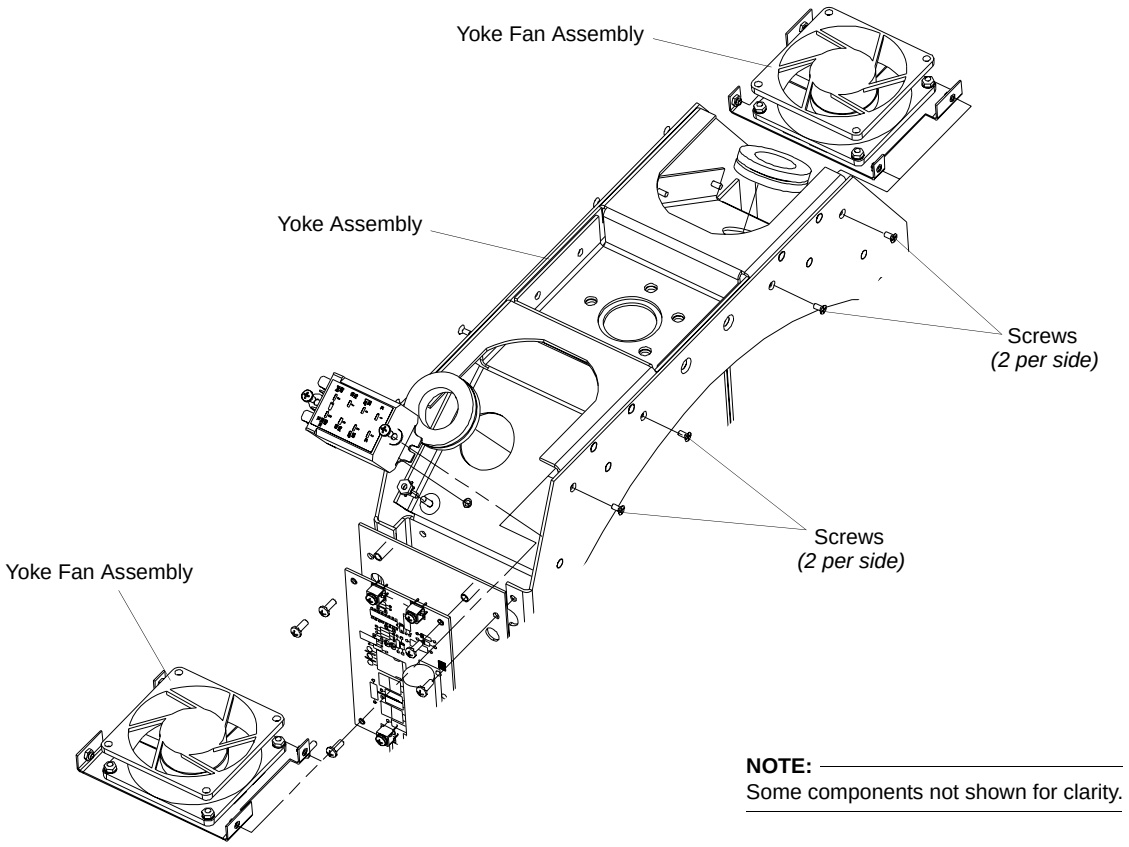


Figure 2-19: VL3000 Yoke Fan Assembly Replacement

Upper Enclosure Fan Assembly Replacement

VL Part No: 23.9678.0686

VL Part No: 23.9678.0888

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At enclosure, remove two 6-32x1/4" LG PPZ screws from display side cover and remove cover.

Step 3. At power supply, disconnect wiring:

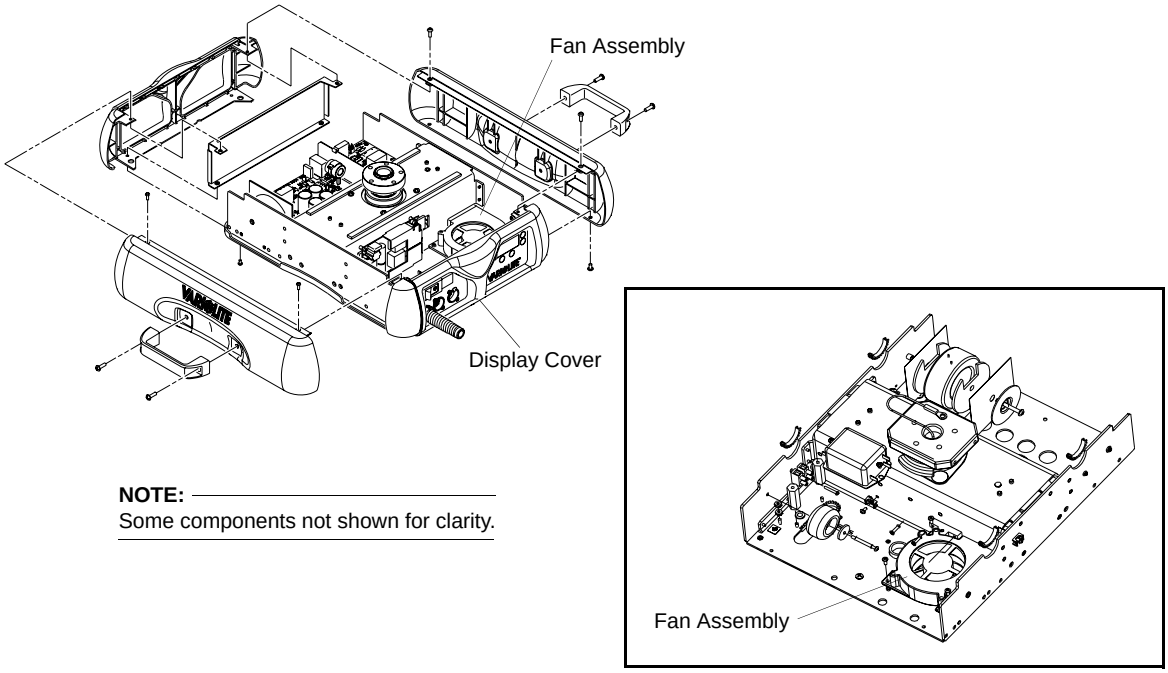
Location	Connector
N	White AC Wires
L	Black AC Wires
V +	Red DC Wires
V -	Black DC Wires

Step 4. Remove one 6-32x3/8" LG PPZ screw.

Step 5. Loosen two 6-32x3/8" LG PPZ screws and slide LVS towards upper enclosure fan to remove.

Step 6. At fan, remove three 6-32x3/8" PPZ screws and remove fan.

Step 7. Replace by performing steps 2 through 6 in reverse order.



NOTE:
Some components not shown for clarity.

Figure 2-20: VL3000 Upper Enclosure Fan Assembly Replacement

Display PCB Assembly Replacement

VL Part No: 24.9678.3825

Repair/Replacement Procedure

Step 1. Disconnect luminaire AC input cable from power source.

Step 2. At enclosure, remove two 6-32x1/4" LG PPZ screws from display side cover and remove cover.

Step 3. At power supply, disconnect wiring:

Location	Connector
N	White AC Wires
L	Black AC Wires
V +	Red DC Wires
V -	Black DC Wires

Step 4. Remove one 6-32x3/8" LG PPZ screw.

Step 5. Loosen two 6-32x3/8" LG PPZ screws and slide LVS towards upper enclosure fan to remove.

Step 6. At Display PCB, remove two 6-32x3/8" PPZ screws, remove Display stiffener bracket and lift PCB out of slot on bottom of chassis.

Step 7. Carefully disconnect wiring from PCB.

Step 8. Replace by performing steps 2 through 7 in reverse order.

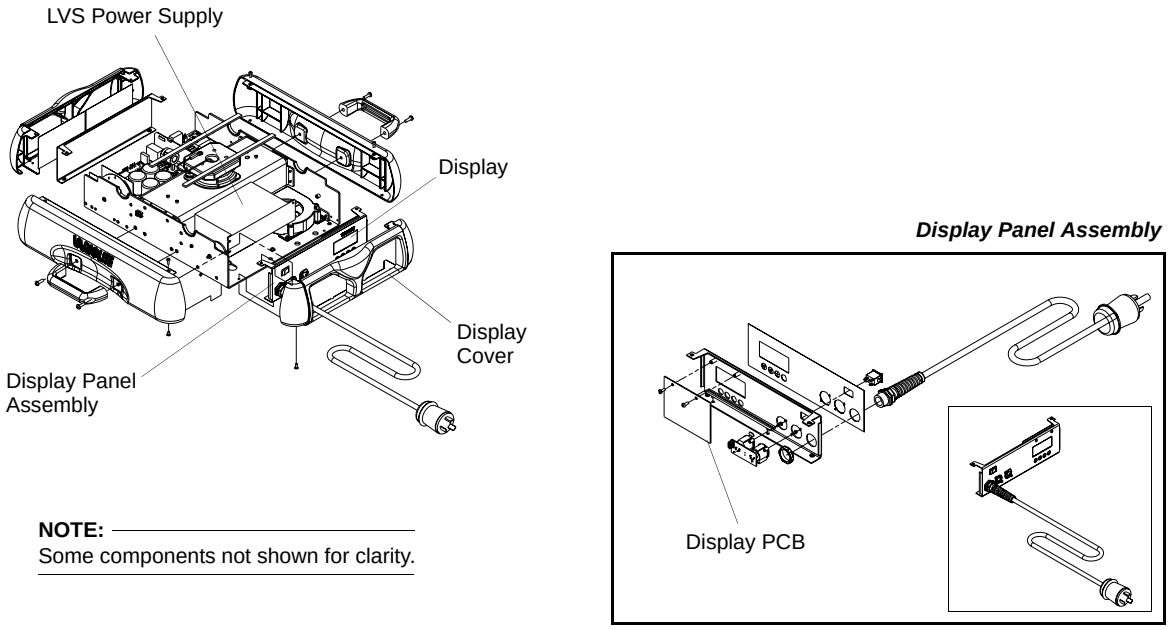


Figure 2-21: VL3000 Display PCB Assembly Replacement

Notes

CHAPTER 3.

Illustrated Parts Breakdown

This chapter contains illustrated parts breakdowns for all VL3000 and VL3000Q luminaire assemblies.

- **Drawing Trees**
- **Top Assembly**
- **Head Assembly**
- **Yoke Assembly**
- **Head/Yoke PCB Assemblies**
- **Enclosure Assembly**
- **Cable Assemblies**

Drawing Trees

VL3000 Spot Luminaire

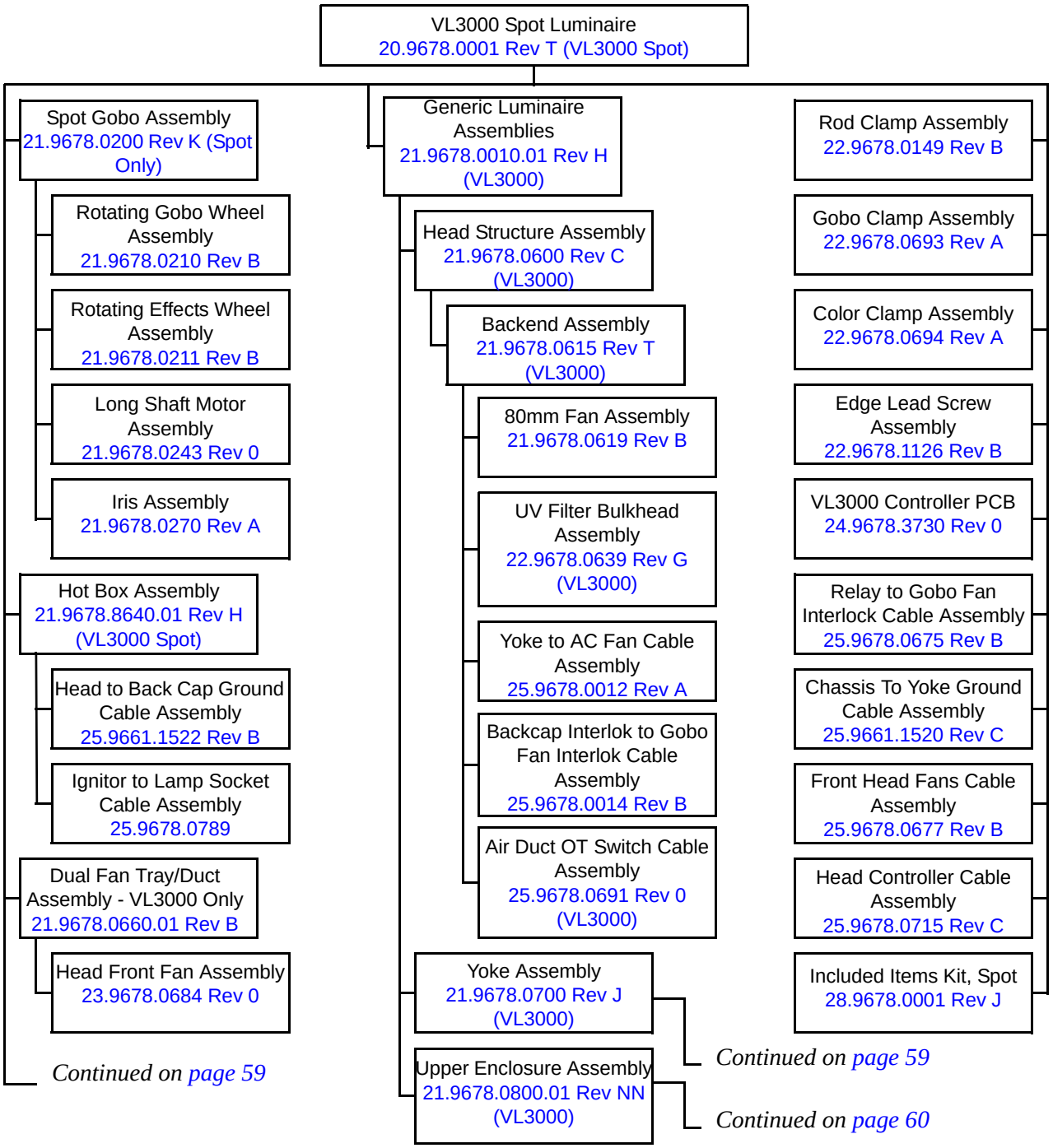


Figure 3-1: VL3000 Spot Luminaire Drawing Tree Part 1

VL3000 Spot Luminaire (continued)

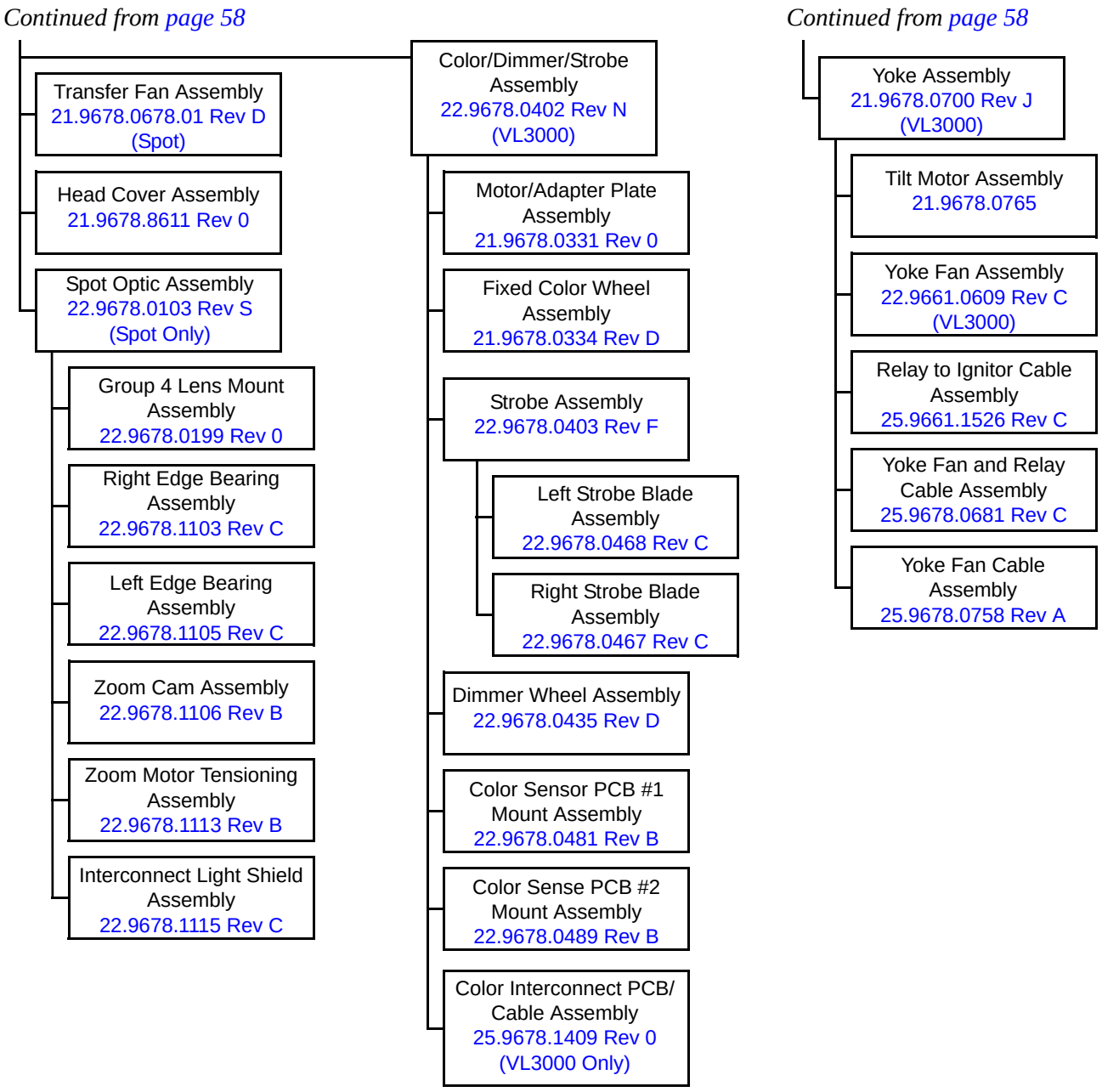


Figure 3-2: VL3000 Spot Luminaire Drawing Tree Part 2

VL3000 Spot Luminaire (continued)

Continued from page 58

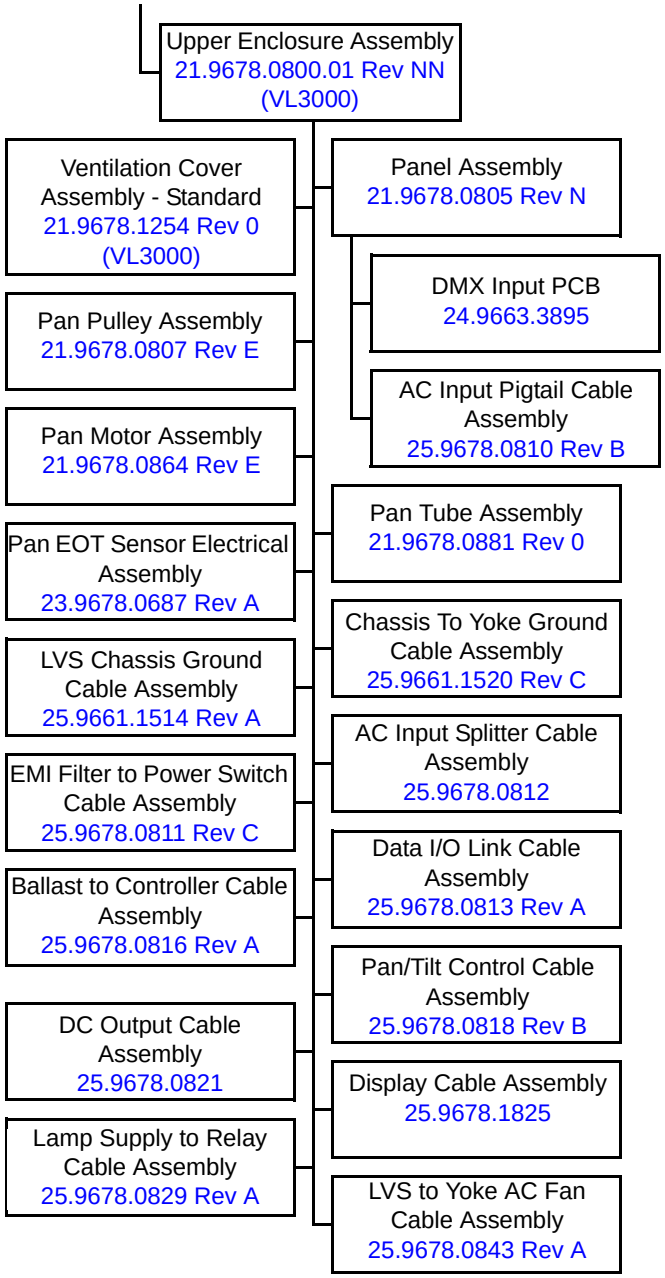


Figure 3-3: VL3000 Spot Luminaire Drawing Tree Part 3

VL3000Q Spot Luminaire

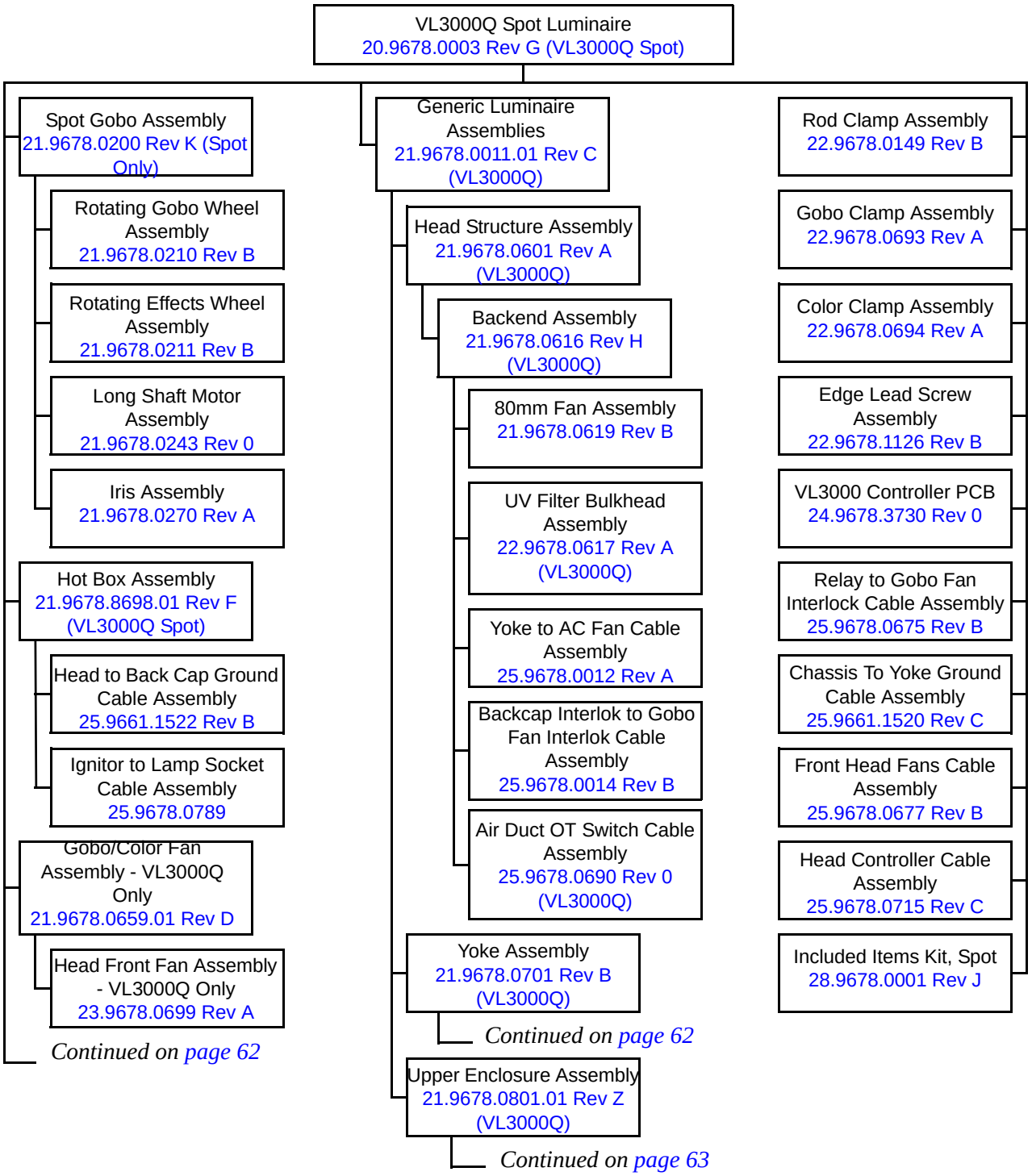


Figure 3-4: VL3000Q Spot Luminaire Drawing Tree Part 1

VL3000Q Spot Luminaire (continued)

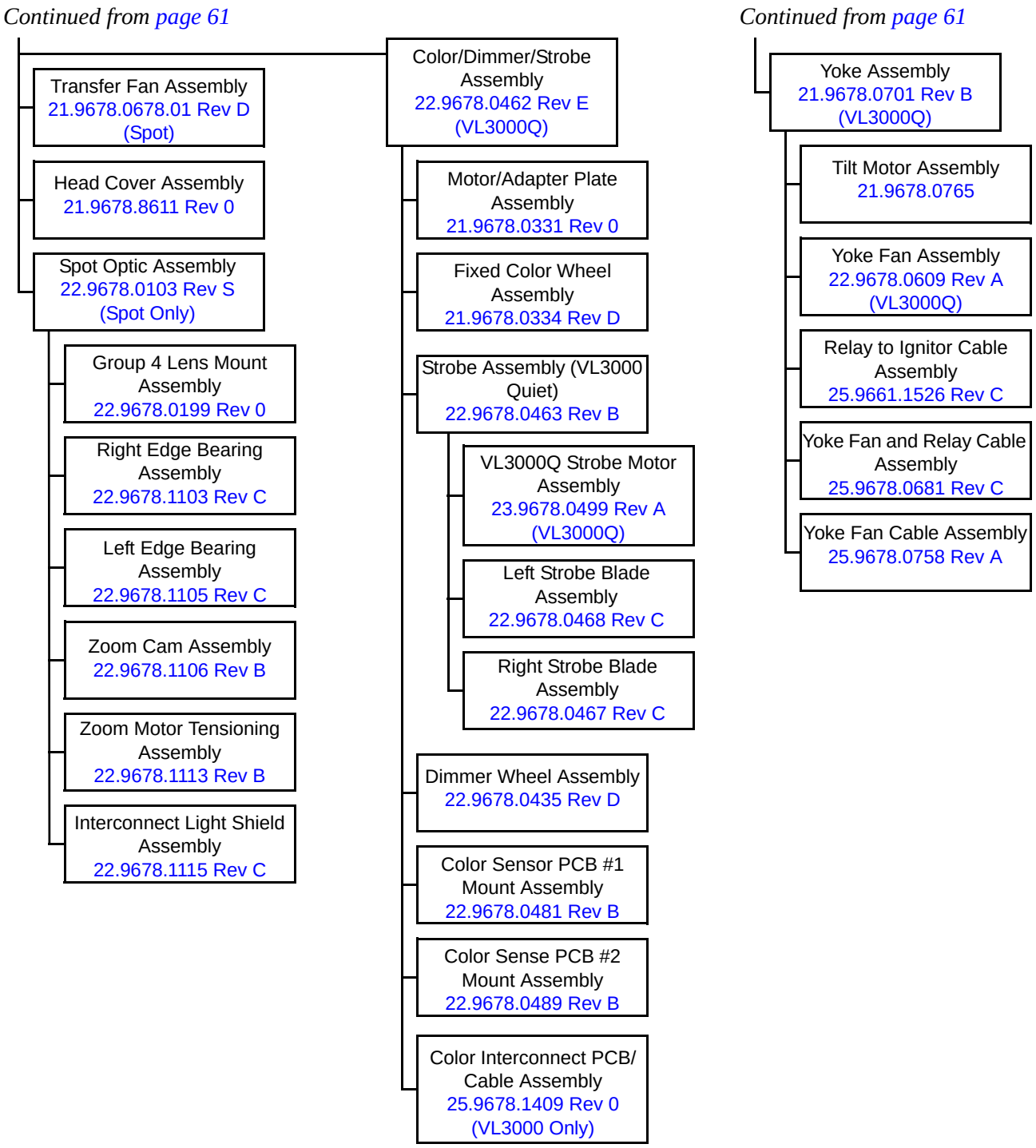

Continued from page 61
Transfer Fan Assembly 21.9678.0678.01 Rev D (Spot)
Head Cover Assembly 21.9678.8611 Rev 0
Spot Optic Assembly 22.9678.0103 Rev S (Spot Only)
Group 4 Lens Mount Assembly 22.9678.0199 Rev 0
Right Edge Bearing Assembly 22.9678.1103 Rev C
Left Edge Bearing Assembly 22.9678.1105 Rev C
Zoom Cam Assembly 22.9678.1106 Rev B
Zoom Motor Tensioning Assembly 22.9678.1113 Rev B
Interconnect Light Shield Assembly 22.9678.1115 Rev C
Color/Dimmer/Strobe Assembly 22.9678.0462 Rev E (VL3000Q)
Motor/Adapter Plate Assembly 21.9678.0331 Rev 0
Fixed Color Wheel Assembly 21.9678.0334 Rev D
Strobe Assembly (VL3000 Quiet) 22.9678.0463 Rev B
VL3000Q Strobe Motor Assembly 23.9678.0499 Rev A (VL3000Q)
Left Strobe Blade Assembly 22.9678.0468 Rev C
Right Strobe Blade Assembly 22.9678.0467 Rev C
Dimmer Wheel Assembly 22.9678.0435 Rev D
Color Sensor PCB #1 Mount Assembly 22.9678.0481 Rev B
Color Sense PCB #2 Mount Assembly 22.9678.0489 Rev B
Color Interconnect PCB/ Cable Assembly 25.9678.1409 Rev 0 (VL3000 Only)
Continued from page 61
Yoke Assembly 21.9678.0701 Rev B (VL3000Q)
Tilt Motor Assembly 21.9678.0765
Yoke Fan Assembly 22.9678.0609 Rev A (VL3000Q)
Relay to Ignitor Cable Assembly 25.9661.1526 Rev C
Yoke Fan and Relay Cable Assembly 25.9678.0681 Rev C
Yoke Fan Cable Assembly 25.9678.0758 Rev A

Figure 3-5: VL3000Q Spot Luminaire Drawing Tree Part 2

VL3000Q Spot Luminaire (continued)

Continued from page 61

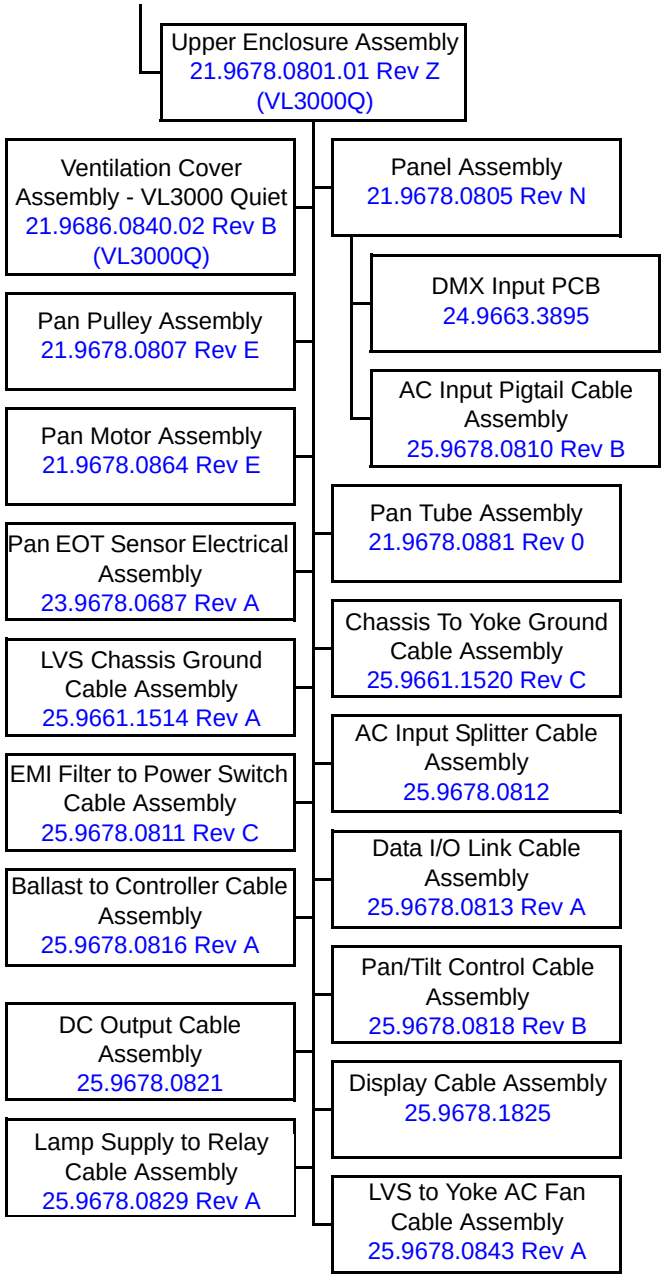


Figure 3-6: VL3000Q Spot Luminaire Drawing Tree Part 3

VL3000 Wash Luminaire

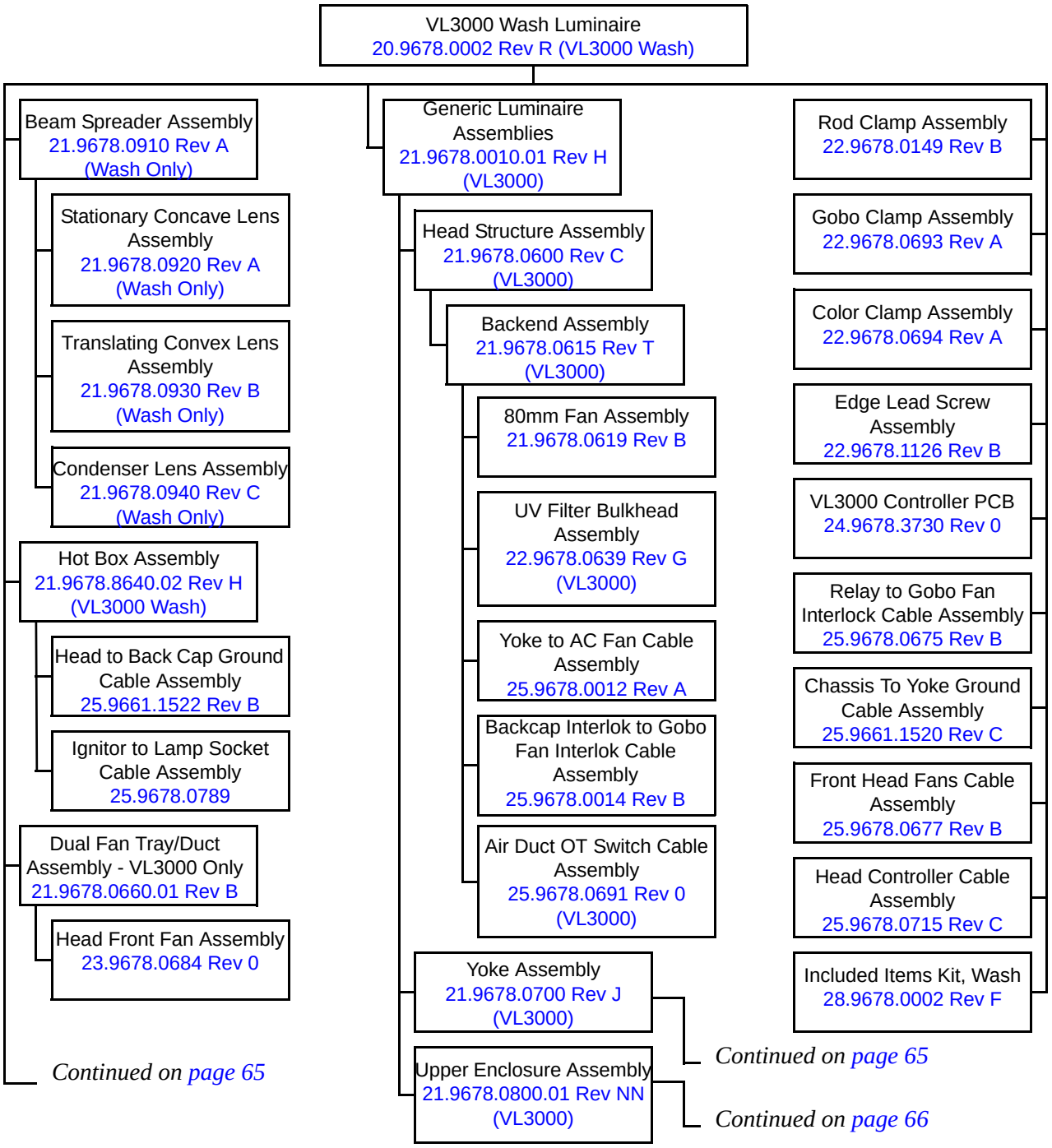


Figure 3-7: VL3000 Wash Luminaire Drawing Tree Part 1

VL3000 Wash Luminaire (continued)

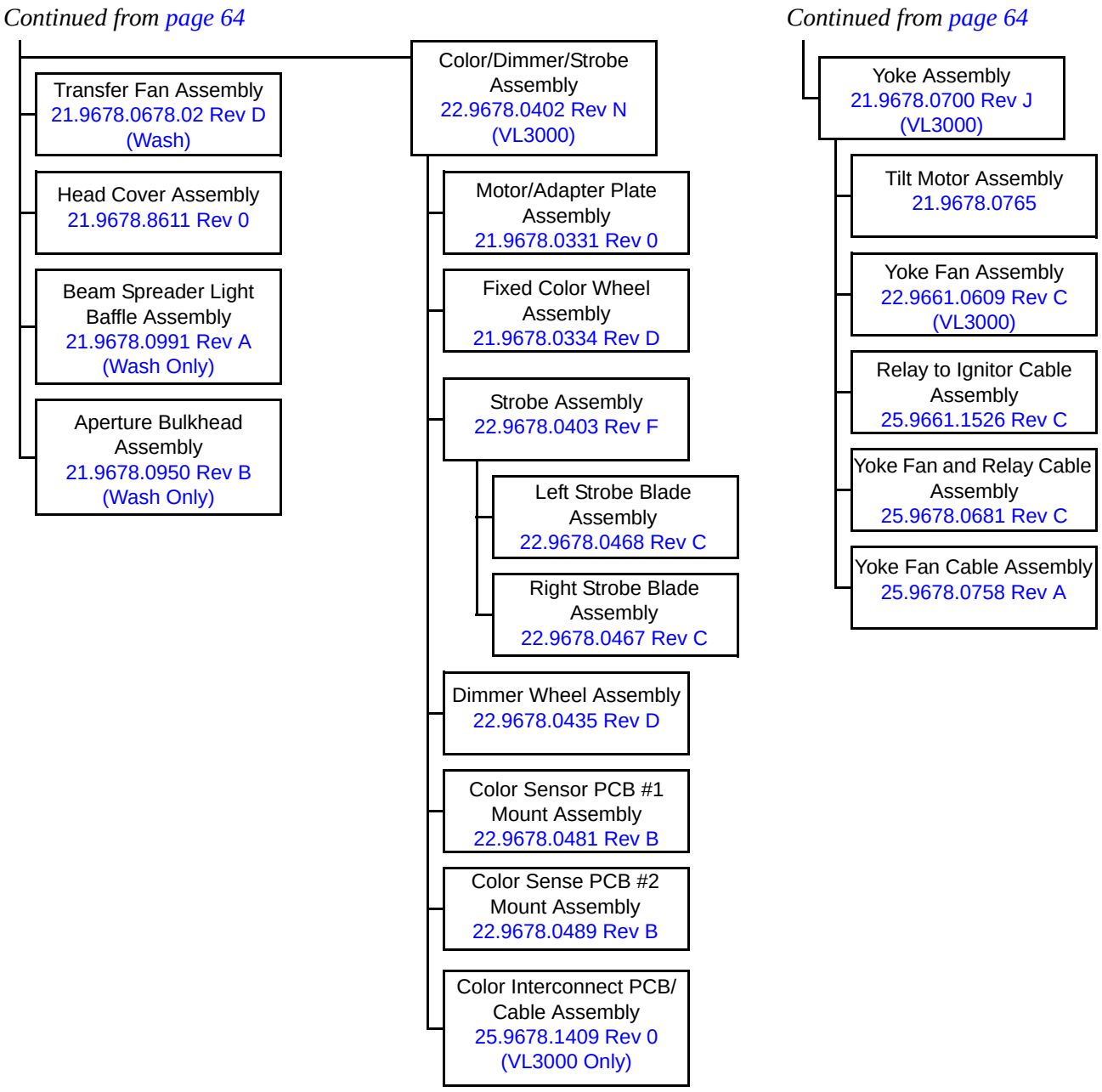


Figure 3-8: VL3000 Wash Luminaire Drawing Tree Part 2

VL3000 Wash Luminaire (continued)

Continued from page 64

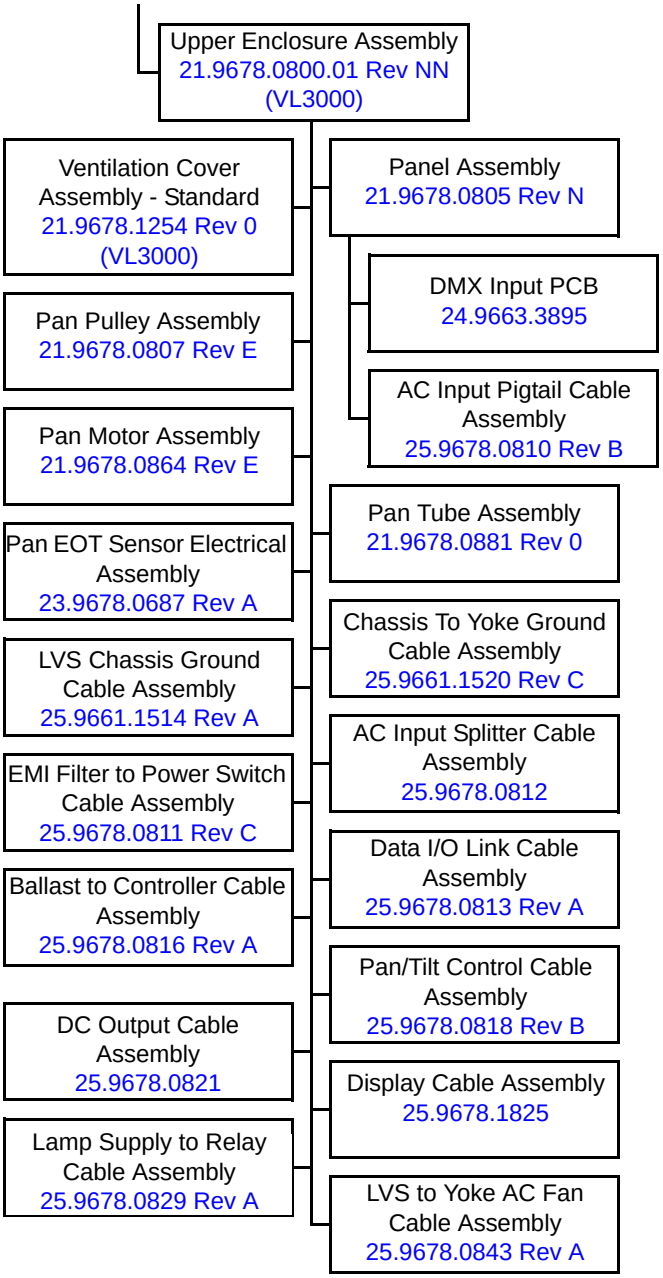


Figure 3-9: VL3000 Wash Luminaire Drawing Tree Part 3

VL3000Q Wash Luminaire

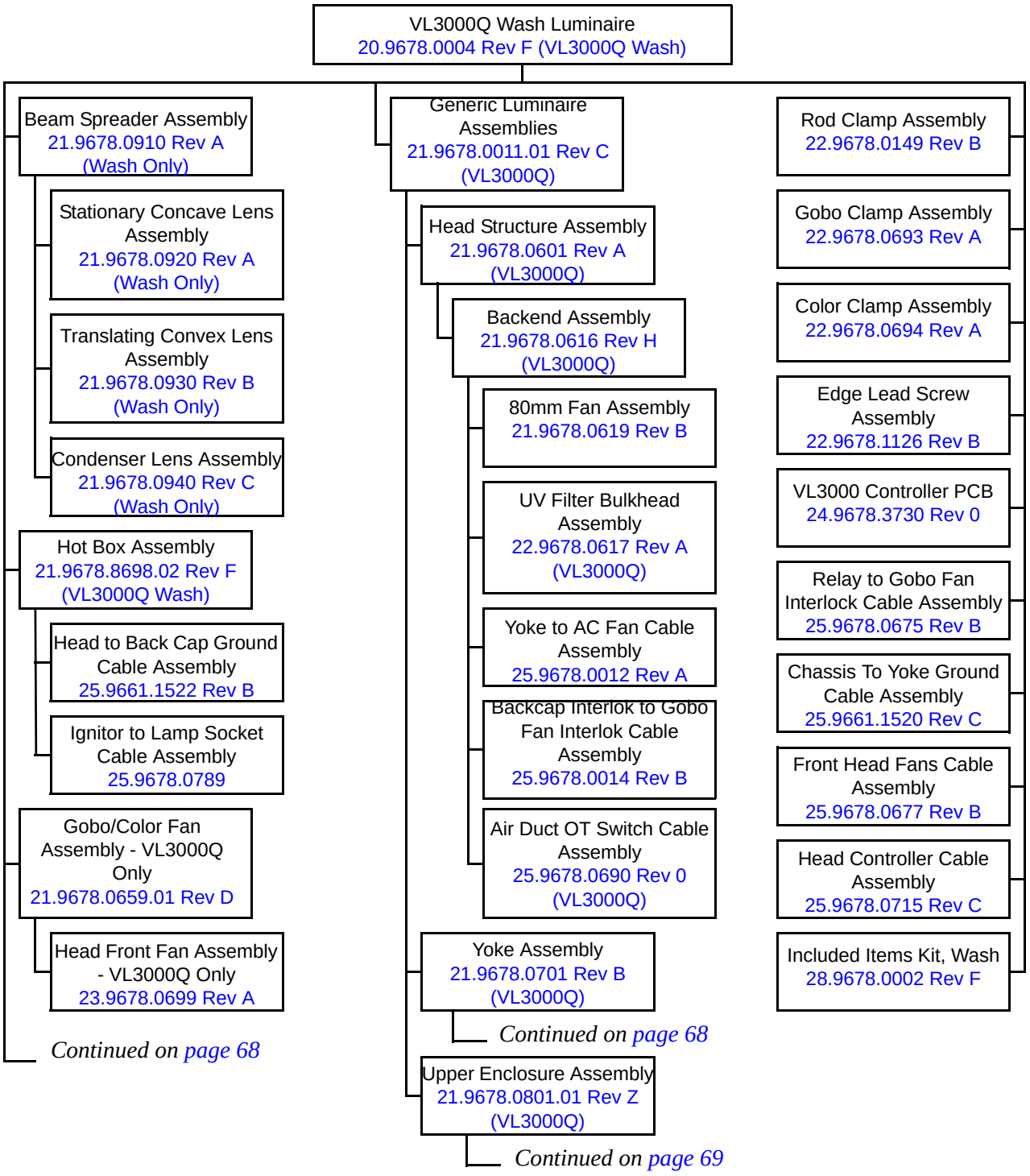


Figure 3-10: VL3000Q Wash Luminaire Drawing Tree Part 1

VL3000Q Wash Luminaire (continued)

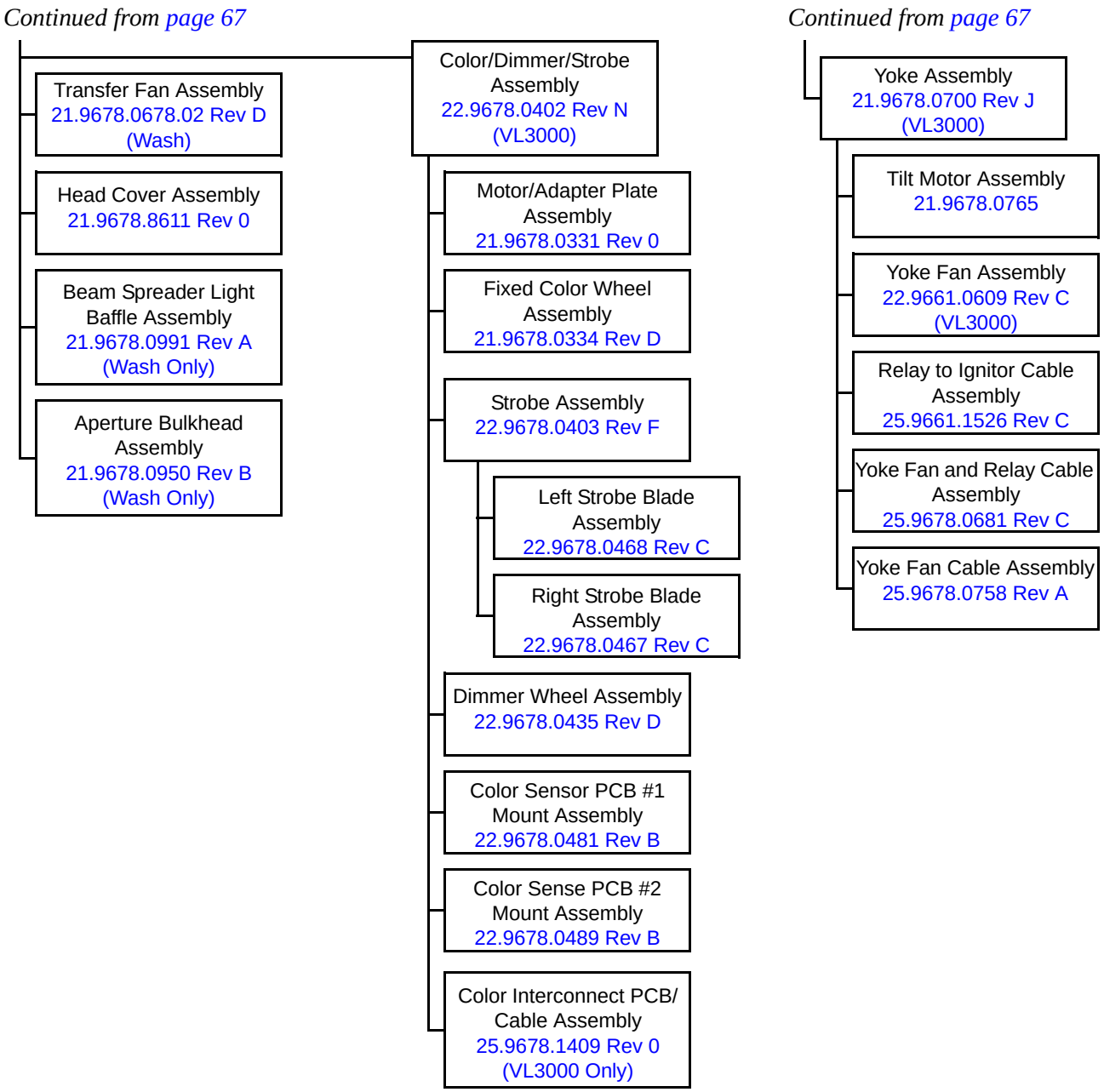


Figure 3-11: VL3000Q Wash Luminaire Drawing Tree Part 2

VL3000Q Wash Luminaire (continued)

Continued from page 67

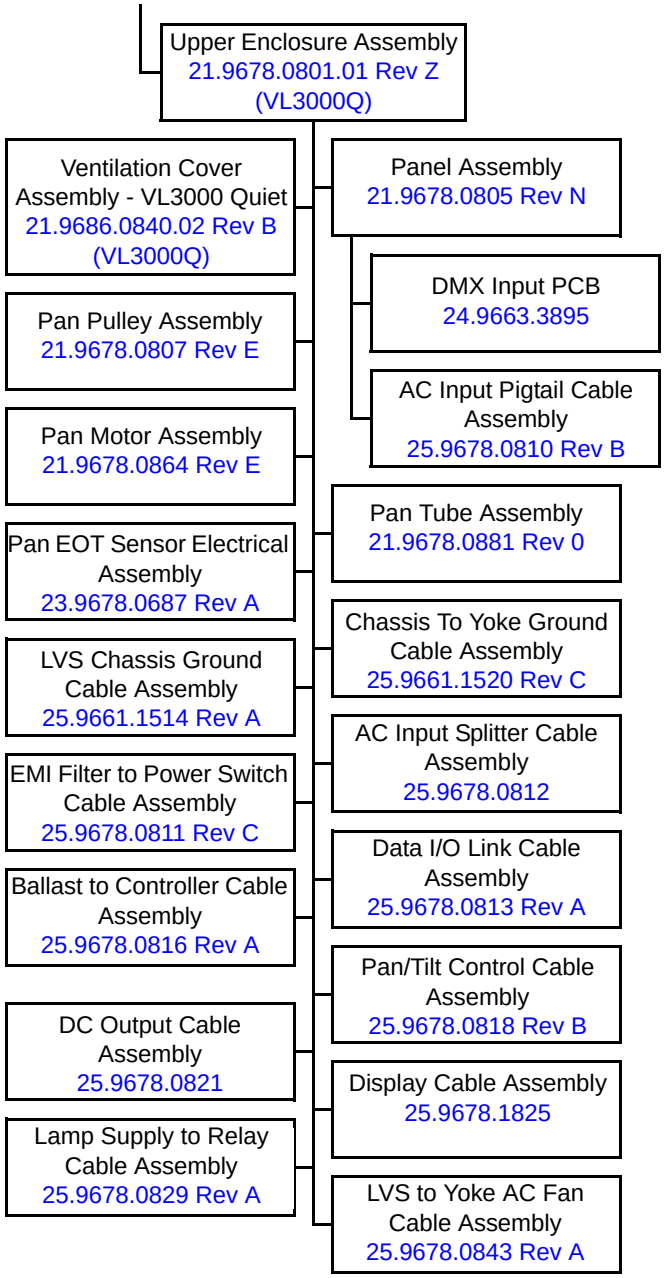


Figure 3-12: VL3000Q Wash Luminaire Drawing Tree Part 3

Top Assembly

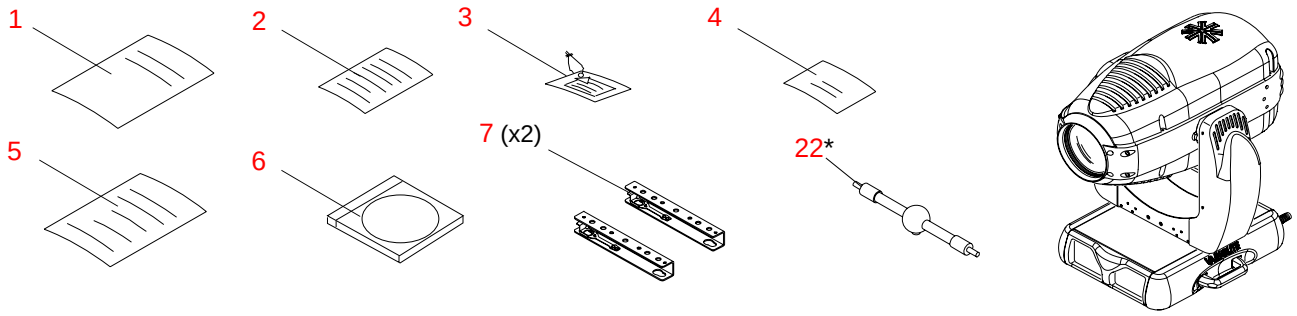
Included Items Kit, Spot

28.9678.0001 Rev J

Refer to Figure 3-13.

No.	Item	Qty.	UM.	Description
1	02.8001.0001	1	EA	PRODUCT SUPPORT SHEET, VARI-LITE CUSTOMER SERVICE
2	02.8052.0001	1	EA	CARD, LIMITED WARRANTY
3	02.8406.0001	1	EA	TAG, LAMP NOTICE
4	02.8700.0001	1	EA	CARD, PRODUCT REGISTRATION
5	02.9678.0002	1	EA	UNPACK/QUICK START SHEET, VL3000
-	04.4037.0001	5	EA	LABEL, 2.5 X .5 BARCODE (**not shown**)
-	07.9678.0036	1	EA	CARDBOARD SHIPPING BOX, VL3000 (**not shown**)
6	08.3000.0001	1	EA	CD-ROM, VL3000 PRODUCT DOCUMENTATION, USER
7	22.9661.1636	2	EA	FAB ASSY, BRACKET TRUSS HOOK
8	41.6030.4211	1	EA	GOBO ASSY, UNEVEN BARS (POS 2-4)
9	41.6030.5011	1	EA	GOBO ASSY, NIGHT SKY (POS 1-3)
10	41.6030.5503	1	EA	GOBO ASSY, PALM LEAVES (POS 2-2)
11	41.6030.5523	1	EA	GOBO ASSY, TRIBAL BREAKUP (POS 1-4)
12	41.6030.6011	1	EA	GOBO ASSY, CIRCLE OF OVALS (POS 3-5)
13	41.6030.7002	1	EA	GOBO ASSY, PEBBLES (POS 1-5)
14	41.6030.7014	1	EA	GOBO ASSY, TRIANGLE BREAKUP (POS 3-4)
15	41.6030.7018	1	EA	GOBO ASSY, SHOCK BREAKUP (POS 2-3)
16	41.6030.7029	1	EA	GOBO ASSY, ALPHA RAYS (POS 1-2)
17	41.6030.8003	1	EA	GAG ASSY, 3-FACET PRISM (POS 3-2)
18	41.6030.8503	1	EA	GAG ASSY, GLACIER (POS 1-6)
19	41.6030.8506	1	EA	GAG ASSY, DROPLETS (POS 2-6)
20	41.6030.8509	1	EA	GAG ASSY, ICE BLOCKS (POS 2-5)
21	41.6030.8801	1	EA	GOBO ASSY, MULTI-COLOR CIRCLES (POS 3-3)
22	71.2557.1200	1	EA	LAMP, 1200 WATT SHORT ARC, DOUBLE-ENDED

Included Items Kit, Spot (continued)



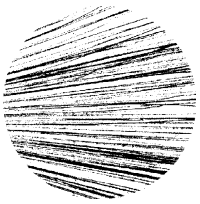
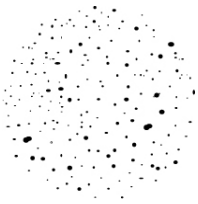
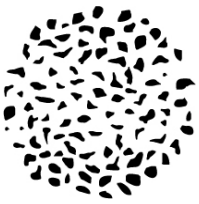
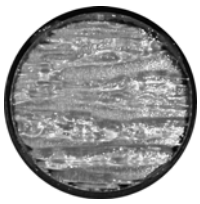
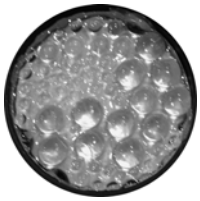
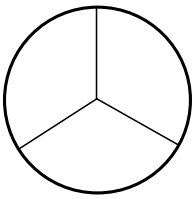
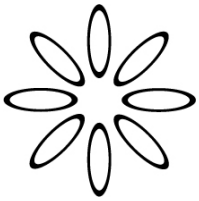
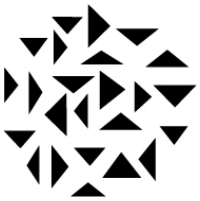
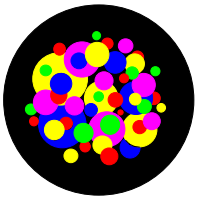
16  *Alpha Rays*	9  *Night Sky*	11 *Tribal Break-Up*	13  *Pebbles*	18  *Glacier Gag*
10 *Palm Leaves*	15 *Shock Break-Up*	8 *Uneven Bars*	20 *Ice Blocks Gag*	19  *Droplets Gag*
17  *3-Facet Prism*	12  *Circle of Ovals*	14  *Triangle Break-Up*	21  *Multi-Colored Gobo*	

Figure 3-13: Included Items Kit, Spot

Note: * = Do not handle lamp with bare hands. When handling, it is best to wear clean cotton gloves in order to keep the lamp's glass as dirt and grease free as possible.

Included Items Kit, Wash

28.9678.0002 Rev F

Refer to Figure 3-14.

No.	Item	Qty.	UM.	Description
1	02.8001.0001	1	EA	PRODUCT SUPPORT SHEET, VARI-LITE CUSTOMER SERVICE
2	02.8052.0001	1	EA	CARD, LIMITED WARRANTY
3	02.8700.0001	1	EA	CARD, PRODUCT REGISTRATION
4	02.9678.0002	1	EA	UNPACK/QUICK START SHEET, VL3000
-	04.4037.0001	5	EA	LABEL, 2.5 X .5 BARCODE (**not shown**)
-	07.9678.0036	1	EA	CARDBOARD SHIPPING BOX, VL3000 (**not shown**)
5	08.3000.0001	1	EA	CD-ROM, VL3000 PRODUCT DOCUMENTATION, USER
6	22.9661.1636	2	EA	FAB ASSY, BRACKET TRUSS HOOK
7	71.2557.1200	1	EA	LAMP, 1200 WATT SHORT ARC, DOUBLE-ENDED

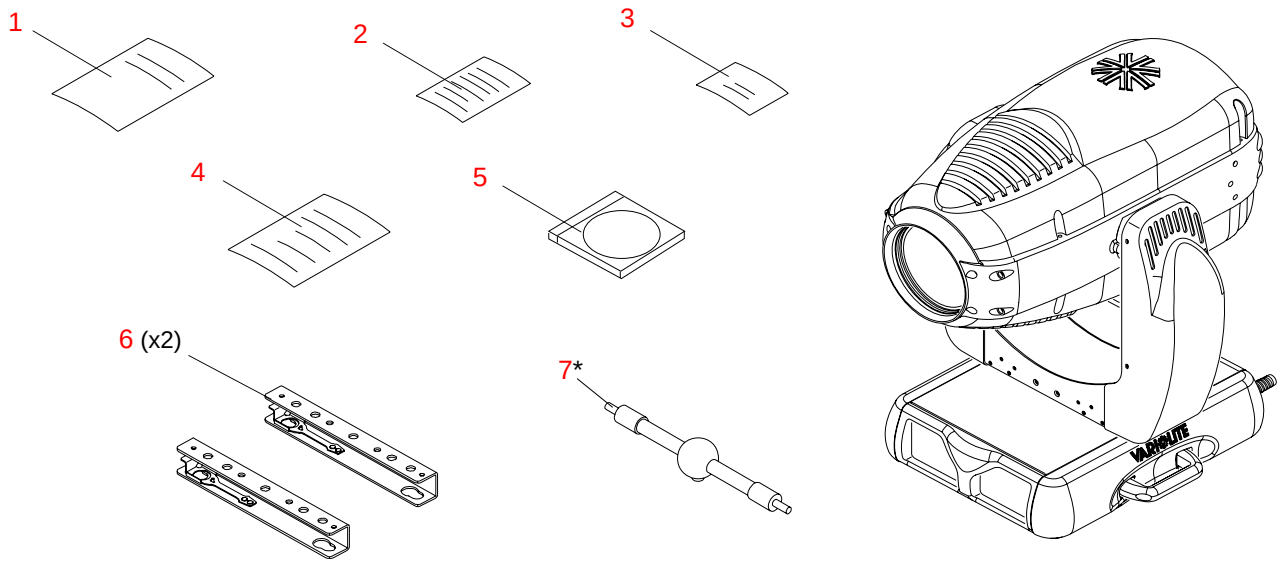


Figure 3-14: Included Items Kit, Wash

Note: * = Do not handle lamp with bare hands. When handling, it is best to wear clean cotton gloves in order to keep the lamp's glass as dirt and grease free as possible.

VL3000 and VL3000Q Spot Luminaire

20.9678.0001 Rev T (VL3000 Spot)
20.9678.0003 Rev G (VL3000Q Spot)

Refer to Figure 3-15

No.	Item	Qty.	UM.	Description
-	02.8405.0001	1	EA	AC DANGER TAG, VL3000 (**not shown**)
-	04.9661.0033.01	1	EA	LABEL, WARNING - 2000 SERIES (**not shown**)
-	04.9661.0039	1	EA	LABEL, LINE CORD WARNING (**not shown**)
-	04.9678.0041.01	1	EA	LABEL, AC INPUT RATING VL3000 (**not shown**)
-	04.9678.0061	1	EA	LABEL, AC INPUT RATING VL3000Q (**not shown**)
-	10.9678.0609	1	EA	FRONT FILTER, FOAM, ZOOM (**not shown**)
1	10.9686.0617	1	EA	YOKE CROSSMEMBER, HEAT SHIELD (changed 02-27-07)
2	10.9686.0732	2	EA	COVER, YOKE THERMOFORM
3	10.9678.0670	1	EA	INTERCONNECT PCB MOUNT, CYM
4	10.9678.0671	1	EA	INTERCONNECT PCB MOUNT, RG
5	10.9678.0658	10	EA	PLATE, COUNTERWEIGHT
6	21.9678.0010.01	1	EA	ASSY, GENERIC LUMINAIRE (**VL3000 Only**)
	21.9678.0011.01	1	EA	ASSY, GENERIC LUMINAIRE (**VL3000Q Only**)
7	21.9678.0200	1	EA	ASSY, SPOT GOBO
8	21.9678.8640.01	1	EA	ASSY, HOT BOX, SPOT (**VL3000 Spot Only**)
	21.9678.8698.01	1	EA	ASSY, HOT BOX, QUIET SPOT (**VL3000Q Spot Only**)
9	21.9678.0660.01	1	EA	ASSY, FAN, TRAY DUCT
	21.9678.0659.01	1	EA	ASSY, FAN TRAY DUCT, QUIET SPOT
10	21.9678.0678.01	1	EA	ASSY, TRANSFER FAN
11	21.9678.8611	2	EA	ASSY, HEAD COVER
12	22.9678.0103	1	EA	ASSY, SPOT OPTIC
13	22.9678.0402	1	EA	ASSY, CLR/DIM/STROB
	22.9678.0462	1	EA	ASSY, CLR/DIM/STROB, QUIET SPOT
14	22.9678.0149	4	EA	ASSY, ROD CLAMP
15	22.9678.0693	2	EA	ASSY, GOBO CLAMP
16	22.9678.0694	2	EA	ASSY, COLOR CLAMP
17	22.9678.1126	1	EA	ASSY, LEAD SCREW EDGE
18	24.9678.3730	1	EA	PCB ASSY, VL3000 CONTROLLER
-	25.9678.0675	1	EA	CABLE ASSY, RELAY TO GOBO INTERLOCK SWITCH (**not shown**)
-	25.9661.1520	1	EA	CABLE ASSY, YOKE TO HEAD GND (**not shown**)

No.	Item	Qty.	UM.	Description
-	25.9678.0677	1	EA	CABLE ASSY, FRONT HEAD FANS (**not shown**)
-	25.9678.0715	1	EA	CABLE ASSY, HEAD CONTROLLER (**not shown**)
-	28.9678.0001	1	EA	INCLUDED ITEMS KIT, VL3000 SPOT (**not shown**)
19	53.2001.0003	4	EA	NUT, 10-32 NYLON INSERT
20	53.2002.0003	4	EA	NUT, 6-32 HEX ZINC NYLON IN
21	53.6523.0013	8	EA	SCREW, 6-32 X 3/8" PTB
22	53.6558.0009	8	EA	SCREW, 6-32 X 3/8"LG PPZ SEMS
23	53.6558.0016	2	EA	SCREW, 6-32 X 3/4" PPS SEMS
24	53.6579.0001	4	EA	SCREW, 10-32 X 1/2" SCB
25	53.6613.0001	2	EA	SCREW, 6-32 X 1/2" PPZ
26	53.6614.0003	4	EA	SCREW, 6-32 X 5/8" PFZ
27	55.2284.0001	2	EA	CARD GUIDE, 3" LONG SNAP IN
28	55.6506.0024	2	EA	SPACER, 3/16"RND.1875"LG 0.141 THRU SS
29	55.6528.0001	2	EA	WASHER, #6 FLAT ZINC
30	55.6573.0001	2	EA	HARDENED SHAFT, 10MM DIA X 200MM HARDENED
31	55.6616.0001	4	EA	STANDOFF, 3/8 "HEX 6-32 THRD
32	55.2150.0002	2	EA	STANDOFF, 1/4 " HEX 6-32 1.188"LG MF STL (changed 05-27-03)
33	55.6677.0033	4	EA	WASHER, .201" OD .125" ID .032" THK FLAT SS
34	53.6558.0007	4	EA	SCREW, 6-32 X 1/4"LG PPZ SEMS EXT ZINC PLT (added 07-07-03)
-	55.6699.0003	.830	FT	SLEEVING, 1/2"NOM.DIA. POLY (**not shown**)
-	55.6699.0004	1.16	FT	SLEEVING, 3/4"NOM.DIA. POLY (**not shown**)
35	53.2202.0008	1	EA	NUT, 8-32 HEX SS NYLON INSERT (added 05-24-04)

VL3000 Spot Luminaire (continued)

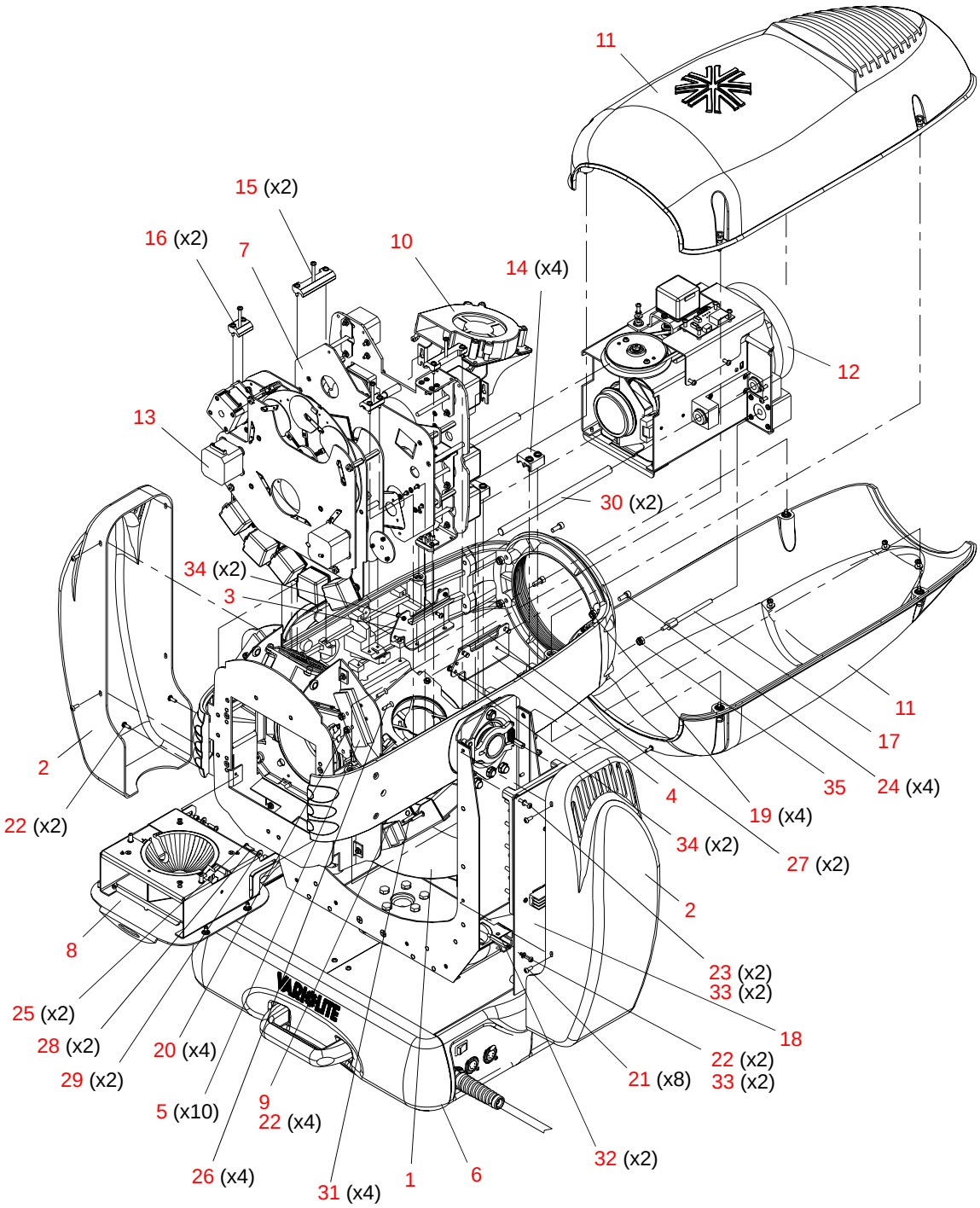


Figure 3-15: VL3000 and VL3000Q Spot Luminaire

* *Only used with 22.9678.0705 (Yoke Structure) Rev. D or later or 22.9686.0705. For prior versions of Yoke Structure, use Center of Travel Flag part number: 10.9678.0755.*

VL3000 and VL3000Q Wash Luminaire

20.9678.0002 Rev R (VL3000 Wash)
20.9678.0004 Rev F (VL3000Q Wash)

Refer to Figure 3-16

No.	Item	Qty.	UM.	Description
-	02.8405.0001	1	EA	AC DANGER TAG, VL3000 (**not shown**)
-	04.9661.0033.01	1	EA	LABEL, WARNING - 2000 SERIES (**not shown**)
-	04.9661.0039	1	EA	LABEL, LINE CORD WARNING (**not shown**)
-	04.9678.0041.01	1	EA	LABEL, AC INPUT RATING VL3000 (**not shown**)
-	04.9678.0061	1	EA	LABEL, AC INPUT RATING VL3000Q (**not shown**)
1	10.9686.0617	1	EA	YOKE CROSSMEMBER, HEAT SHIELD (changed 02-27-07)
2	10.9678.0670	1	EA	INTERCONNECT PCB MOUNT, CYM
3	10.9678.0732	2	EA	COVER, YOKE THERMOFORM
4	21.9678.0010.01	1	EA	ASSY, GENERIC LUMINAIRE (**VL3000 Only**)
	21.9678.0011.01	1	EA	ASSY, GENERIC LUMINAIRE (**VL3000Q Only**)
5	21.9678.8611	2	EA	ASSY, HEAD COVER
6	21.9678.8640.02	1	EA	ASSY, WASH HOT BOX
	21.9678.8698.02	1	EA	ASSY, HOT BOX, VL3000Q WASH
7	21.9678.0660.01	1	EA	ASSY, FAN, TRAY/DUCT (changed 03-01-05)
	21.9678.0659.01	1	EA	ASSY, FAN, TRAY/DUCT, VL3000Q WASH
8	21.9678.0678.02	1	EA	ASSY, TRANSFER FAN (changed 11-11-03)
9	21.9678.0910	1	EA	ASSY, BEAM SPREADER
10	21.9678.0991	2	EA	ASSY, LIGHT BAFFLE BEAM SPREAD
11	21.9678.0950	1	EA	ASSY, APERATURE BULKHEAD
12	22.9678.0149	2	EA	ASSY, ROD CLAMP
13	22.9678.0402	1	EA	ASSY, CLR/DIM/STROB
	22.9678.0462	1	EA	ASSY, CLR/DIM/STROB, VL3000Q WASH
14	22.9678.0693	2	EA	ASSY, GOBO CLAMP
15	22.9678.0694	2	EA	ASSY, COLOR CLAMP
16	24.9678.3730	1	EA	PCB ASSY, VL3000 CONTROLLER
-	25.9678.0675	1	EA	CABLE ASSY, RELAY TO GOBO FAN (**not shown**)
-	25.9678.0677	1	EA	CABLE ASSY, FRONT HEAD FANS (**not shown**)
-	25.9661.1520	1	EA	CABLE ASSY, YOKE TO HEAD GND (**not shown**)
-	25.9678.0715	1	EA	CABLE ASSY, HEAD CONTROL (**not shown**)
-	28.9678.0002	1	EA	INCLUDED ITEMS KIT, VL3000 WASH (**not shown**)

No.	Item	Qty.	UM.	Description
17	53.6523.0013	8	EA	SCREW, 6-32 X 3/8" PPB
18	53.6558.0009	11	EA	SCREW, 6-32 X 3/8" LG PPZ SEMS
19	53.6558.0016	2	EA	SCREW, 6-32 X 3/4" PPZ SEMS
20	53.6579.0001	4	EA	SCREW, 10-32 X 1/2" SCB
21	53.6613.0001	2	EA	SCREW, 6-32 X 1/2" PPZ
22	53.6682.0022	8	EA	SCREW, 8-32 X 3/8" LG PPZ SEMS
23	55.2178.0001	1	EA	CABLE ANCHOR MOUNT, #8 SCREW MOUNT
24	55.2284.0001	1	EA	CARD GUIDE, 3" LONG SNAP IN
25	55.6506.0024	2	EA	SPACER, 3/16" RND .1875" LG .141" THRU SS
26	55.6528.0001	2	EA	WASHER, #6 FLAT ZINC
27	55.2150.0002	2	EA	STANDOFF, 1/4 " HEX 6-32 1.188" LG MF STL (changed 5-27-03)
28	55.6677.0033	4	EA	WASHER, .281" OD .125" ID .032" THK FLAT SS
29	53.6558.0007	2	EA	SCREW, 6-32 X 1/4"LG PPZ SEMS EXT ZINC PLT (added 7-07-03)
-	55.6699.0003	.83	FT	SLEEVING, 1/2"NOM.DIA. POLY (**not shown**)
-	55.6699.0004	1.16	FT	SLEEVING, 3/4"NOM.DIA. POLY (**not shown**)

VL3000 and VL3000Q Wash Luminaire (continued)

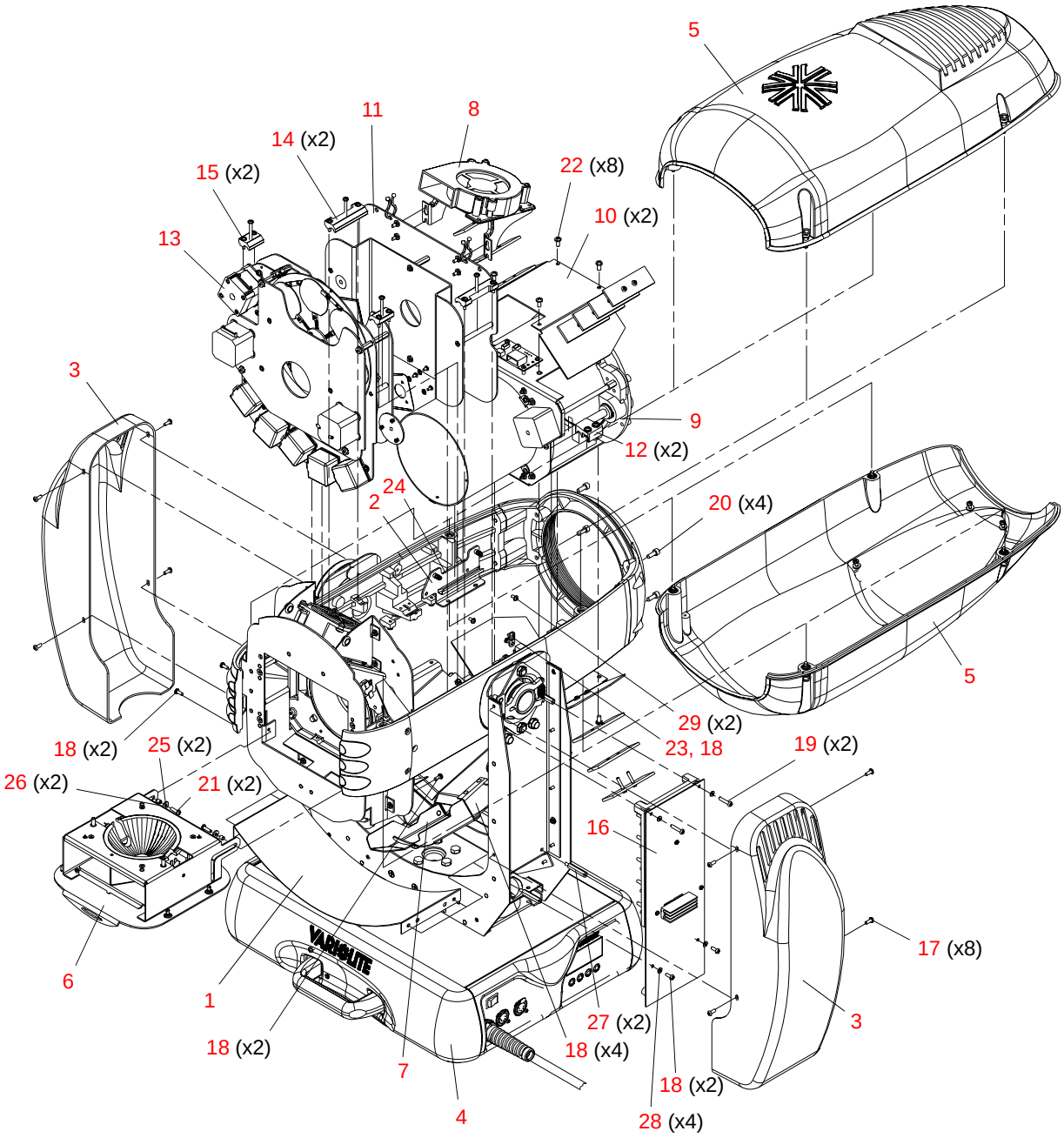


Figure 3-16: VL3000 and VL3000Q Wash Luminaire

Generic Luminaire Assemblies

21.9678.0010.01 Rev H (VL3000)
21.9678.0011.01 Rev C (VL3000Q)

Refer to Figure 3-17

No.	Item	Qty.	UM.	Description
1	21.9678.0600	1	EA	ASSY, HEAD STRUCTURE
	21.9678.0601	1	EA	ASSY, HEAD STRUCTURE, VL3000 QUIET
2	21.9678.0700	1	EA	ASSY, YOKE
	21.9678.0701	1	EA	ASSY, YOKE, VL3000 QUIET
3	21.9678.0707	1	EA	ASSY, TILT PULLEY
3a	- 10.9678.0750	1	EA	TIMING PULLEY, 150 TOOTH
3b	- 10.9678.0754 *	1	EA	FLAG, CENTER OF TRAVEL, TILT
3c	- 53.6530.0009	3	EA	RIVET, 1/8"OD POP .126-.187GL
4	21.9678.0767	1	EA	ASSY, STABILIZER
4a	- 10.9678.0757	1	EA	STABILIZER, 1.377DIA
4b	- 10.9678.0762	1	EA	BRACKET, STABLIZER
4c	- 53.6610.0003	1	EA	SCREW, 6-32 X 7/16" PPZ
4d	- 55.6568.0075	1	EA	SPRING, EXTSN .375"OD 1.00"LG .041" WIRE DIA
5	21.9678.0800.01	1	EA	ASSY, UPPER ENCLOSURE
	21.9678.0801.01	1	EA	ASSY, UPPER ENCLOSURE, VL3000Q
6	53.2019.0004	4	EA	NUT, 3/8-16 X 7/32"THK HEX JAM GRD5 ZINC PLT
7	53.6505.0020	5	EA	BOLT, 1/4-28X 3/4"HX HD GRD 8 ZINC PLT FULL THRD
8	53.6505.0026	4	EA	BOLT, 3/8-16 X .500"LG H X HD GRADE 5 BLK 9/16"HEX HEAD X .23 TALL
9	53.6539.0001	4	EA	WASHER, 3/8" SPLIT LOCK
10	53.5564.0250	1	EA	SCREW, 6-32 X 1/4" PFB UNDERCUT (changed 04-07-06)
11	53.6624.0001	4	EA	SCREW, 10-32 X 1/2"LG PFB (changed 12-02-03)
12	53.6513.0044	3	EA	SCREW, M5 X 10MM STL CUP PT (changed 10-13-03)
13	54.1206.0014	2	EA	RING, RETAINING 1.375"SHAFT 1.291"GRV DIA .056"GRVWD EXTERNAL
14	54.1255.0001	2	EA	BEARING ASSY, BLACK FLUSH MOUNT HOUSING
15	54.2055.0001	1	EA	BELT, TIMING S2M 210GROOVE 9MMWIDE URETHANE/KEVLAR
16	55.6549.0001	5	EA	WASHER, 1/4" SPLIT LOCK
17	55.6799.0001	2	EA	SHIM, 1-3/8"ID, 1-7/8"OD, .010" THK, SS (added 7-14-03)
18	55.6799.0002	2	EA	SHIM, 1-3/8"ID, 1-7/8"OD, .005" THK, SS (added 7-14-03)

Generic Luminaire Assemblies (continued)

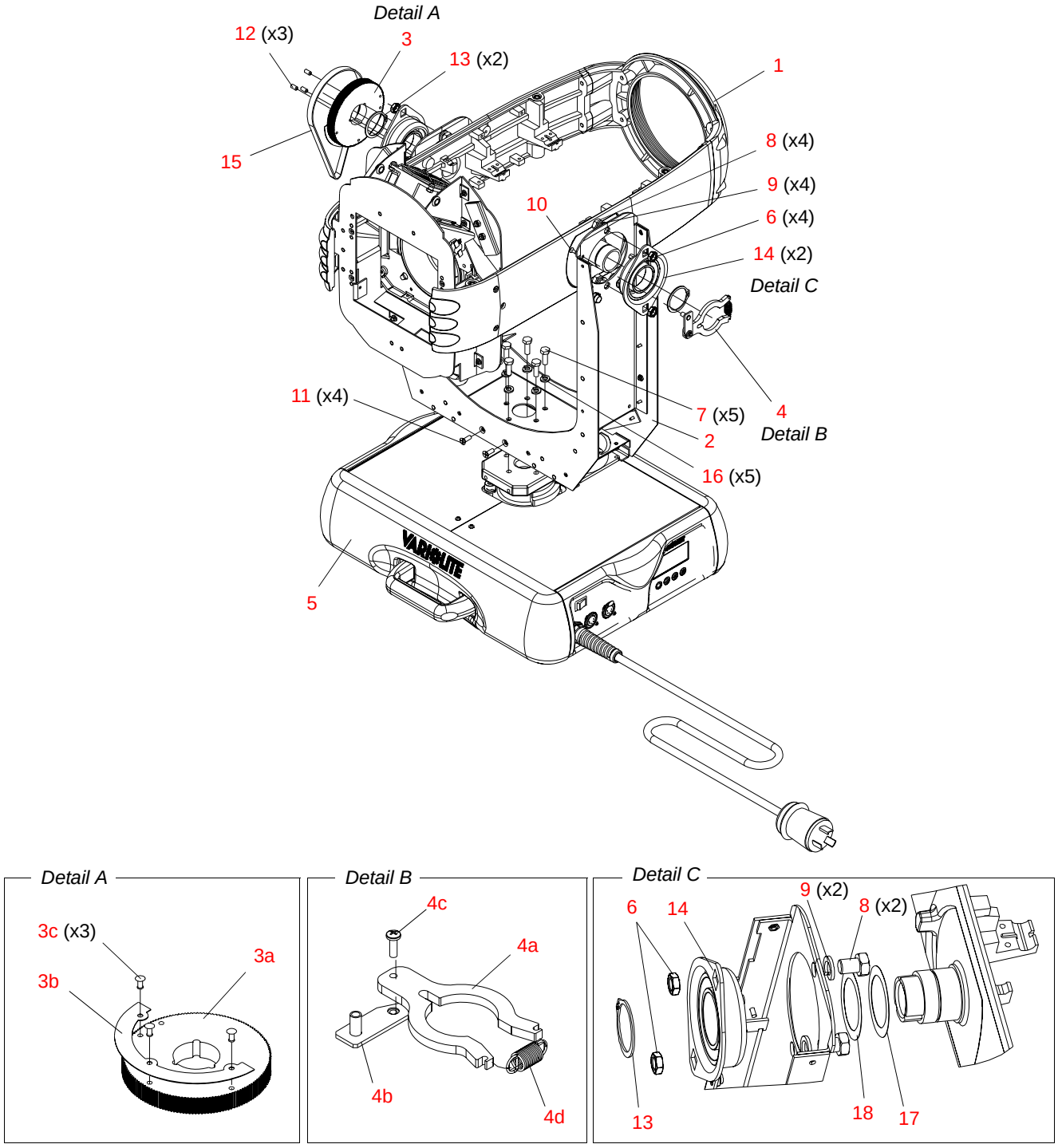


Figure 3-17: VL3000 and VL3000Q Generic Luminaire Assemblies

Head Assembly

Head Structure Assembly

21.9678.0600 Rev C (VL3000)
21.9678.0601 Rev A (VL3000Q)

Refer to Figure 3-1

No.	Item	Qty.	UM.	Description
1	10.9678.8620	1	EA	FRONT CASTING
2	12.9678.8623	1	EA	RIGHT SIDE RAIL, MACHINED
3	12.9678.8625	1	EA	LEFT SIDE RAIL, MACHINED
4	21.9678.0615	1	EA	ASSY, BACKEND
	21.9678.0616	1	EA	ASSY, BACKEND, VL3000 QUIET
5	53.6515.0001	6	EA	SCREW, 10-32 X 3/4" SCB CAP
6	53.6515.1000	1	EA	SCREW, 10-32 X 1" SOCKET CAP BLACK
7	53.6515.1125	3	EA	SCREW, 10-32 X 1.25" SOCKET CAP BLACK

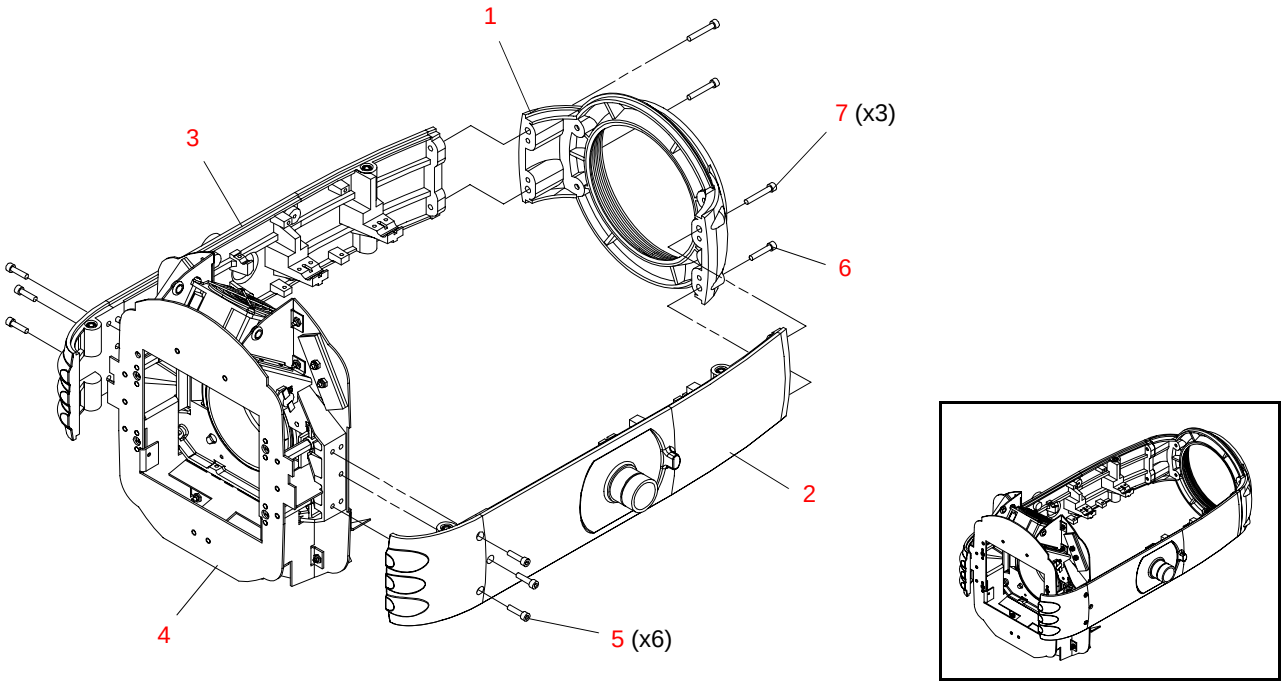


Figure 3-1: Head Structure Assembly

Head Cover Assembly

21.9678.8611 Rev 0

Refer to Figure 3-2

No.	Item	Qty.	UM.	Description
1	10.9678.0612	1	EA	HEAD COVER FOAM BAFFLE
2	10.9678.0649	4	EA	EJECTOR SPRING, BLACK OXIDE
3	10.9678.0674	1	EA	BRACKET, COVER TETHER
4	10.9678.0696	1	EA	FOAM FRAME, HEAD COVER (added 10-01-03)
5	12.9678.8610	1	EA	HEAD COVER
6	53.5655.0250	4	EA	SCREW, #6 X 1/4" PPZ PLASTIC
7	53.6558.0003	1	EA	SCREW, 6-32 X 3/8"LG PPZ PLASTIC THD ROLL
8	55.2233.0016	4	EA	RETAINER, SPLIT RING (changed 04-19-05)
9	55.2233.0775	4	EA	STUD, 1/4 TURN OPR.775L STEEL BLK ZINC (changed 5-21-03)
10	55.9676.0255	4	EA	WASHER, BEVELED SPRING (added 05-15-05)

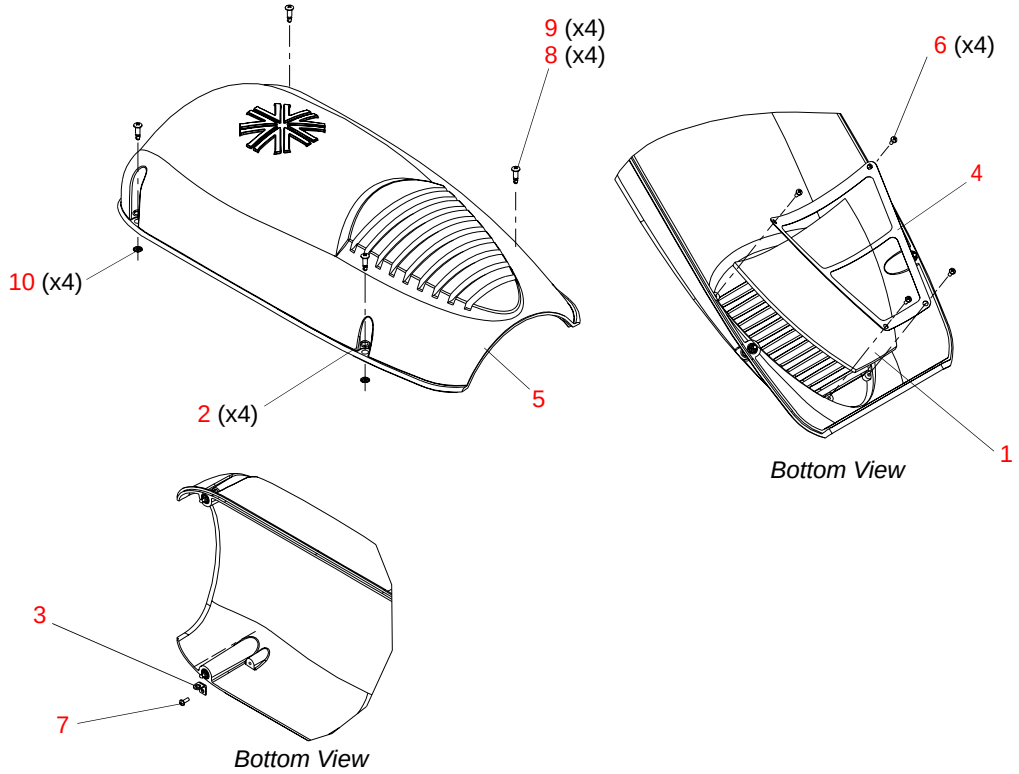


Figure 3-2: Head Cover Assembly

Backend Assembly

21.9678.0615 Rev T (VL3000)
21.9678.0616 Rev H (VL3000Q)

Refer to Figure 3-3

No.	Item	Qty.	UM.	Description
1	10.9678.0631	1	EA	SEPARATION BULKHEAD
2	10.9678.8635	1	EA	EXHAUST BULKHEAD
3	10.9678.0637	2	EA	CLIP, RETRO-REFLECTOR
4	10.9678.0638	1	EA	AIR DIVERTER, STROBE MOTOR
5	10.9678.0653	1	EA	LIGHT BAFFLE, EXHAUST
6	12.9678.7152	1	EA	REFLECTOR, RETRO SPHERICAL COATED
7	12.9678.0627	1	EA	AFT BULKHEAD, MACHINED
8	21.9678.0619	1	EA	FAN ASSY, 80MM
9	21.9678.0673	2	EA	TETHER ASSY, COVER
10	22.9678.3655	1	EA	DUCT ASSY, 80MM FAN
11	22.9678.0639	1	EA	UV FILTER BULKHEAD ASSY
	22.9678.0617	1	EA	UV FILTER BULKHEAD ASSY, VL3000 QUIET
-	25.9678.0012	1	EA	CABLE ASSY, AC FAN YOKE TO FAN (**not shown**)
-	25.9678.0014	1	EA	CABLE ASSY, BACKCAP INTERLOK TO GOBO INTERLOK (**not shown**)
12	53.2004.0002	6	EA	NUT, 8-32 KEPS ZINC PLATE
13	53.6519.0001	2	EA	SCREW, 4-40 X 5/8" PPZ
14	53.6545.0009	4	EA	SCREW, 8-32 X 1.375"LG PFZ
15	53.6523.0001	1	EA	SCREW, 6-32 X 3/8" SCB (changed 7-18-03)
16	53.6558.0007	6	EA	SCREW, 6-32 X 1/4" PPZ SEMS
17	53.6559.0001	4	EA	SCREW, 4-40 X 1/4" PFZ
18	53.6609.0001	6	EA	SCREW, 6-32 X 3/8" PFZ
19	53.6613.0001	1	EA	SCREW, 6-32 X 1/2" PPZ
20	53.6614.0003	2	EA	SCREW, 6-32 X 5/8" PFZ
21	53.6616.0001	2	EA	SCREW, 6-32 X 3/4" PPZ
	- 55.6538.0001	2	EA	WASHER, #4 LOCK EXTERNAL TOOTH
22	53.6682.0002	2	EA	SCREW, 4-40 X 1/4"LG PPZ SEMS
23	55.2125.0003	4	EA	STANDOFF, 3/8"HEX 8-32 1.500"L
24	55.6538.0004	7	EA	WASHER,.750" OD, .312" ID, .125" THK, FLAT, TEFLON
25	55.6541.0008	1	EA	GROMMET, 1/2"ID 7/8"OD 3/4"GRV
26	55.6706.0001	4	EA	GROMMET, 9/32"ID 9/16"OD 1/4T
27	74.1099.0001	1	EA	SWITCH, MINIATURE, 5 AMP 150DEG C, NORM OPEN

No.	Item	Qty.	UM.	Description
28	53.6613.0004	3	EA	SCREW, 6-32 X 1/2" SCZ (added 07-18-03)
29	10.9678.1645	1	EA	FAN SHIELD, LAMP COOLING (added 12-09-04)
30	25.9678.0691	1	EA	CABLE ASSY, AIR DUCT OT SWITCH (**cable not shown**)
	25.9678.0690	1	EA	CABLE ASSY, AIR DUCT OT SWITCH, VL3000 QUIET (**cable not shown**)
31	10.9678.0680	1	EA	INSULATOR, TEFLON, TO-220
32	53.2200.0004	1	EA	NUT, 4-40 KEPS

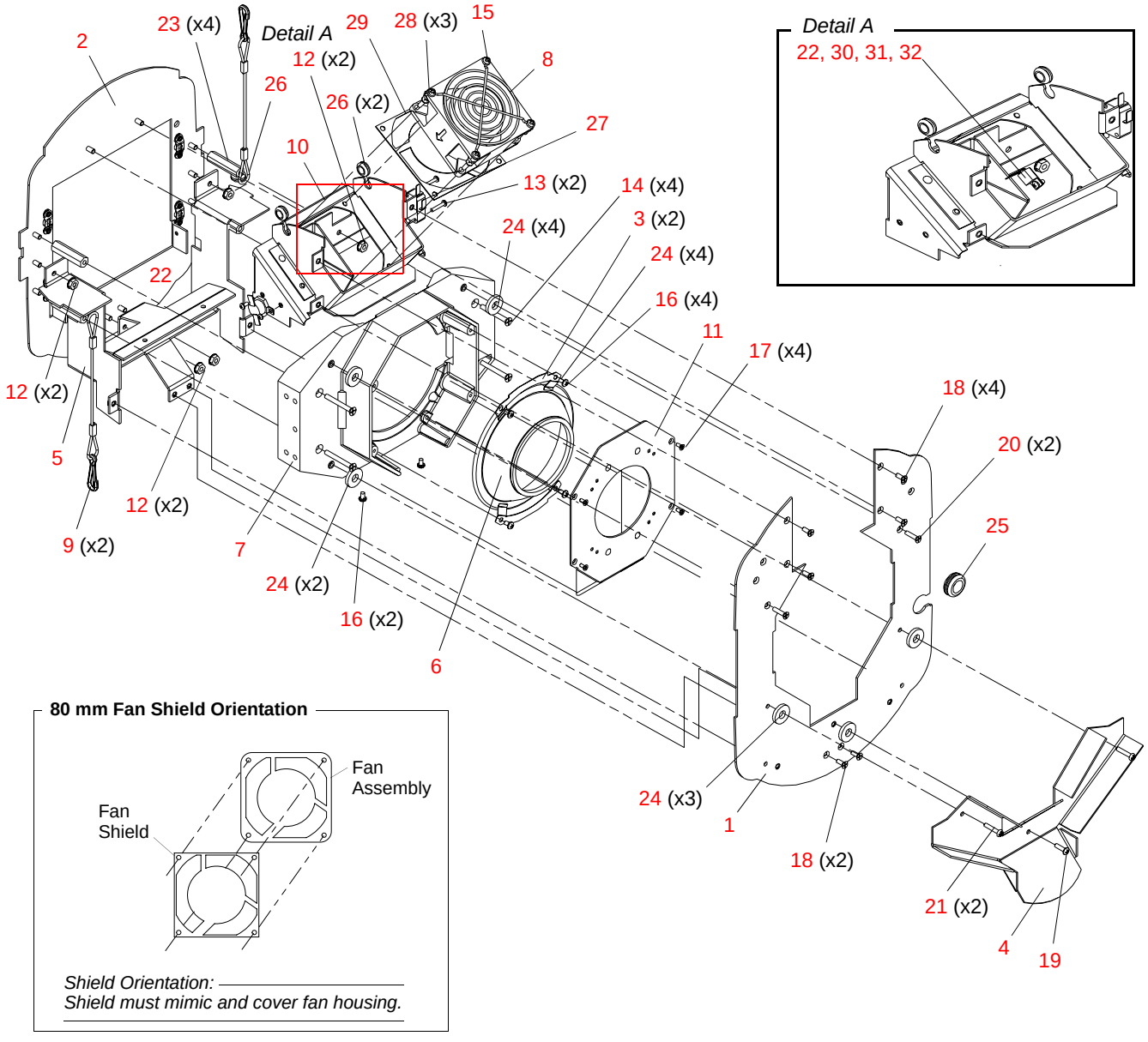


Figure 3-3: Backend Assembly

80mm Fan Assembly

21.9678.0619 Rev B

Refer to Figure 3-4

No.	Item	Qty.	UM.	Description
1	40.7145.0004	1	EA	FAN, TUBEAXIAL 80 X 80 X 38mm 28 CFM 230V (added 03/11/04)
2	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
3	53.6558.0001	4	EA	SCREW, 6-32 X 3/8" PPZ
4	55.7016.0001	1	EA	FAN GUARD, 80MM NICKEL PLATED STEEL WIRE

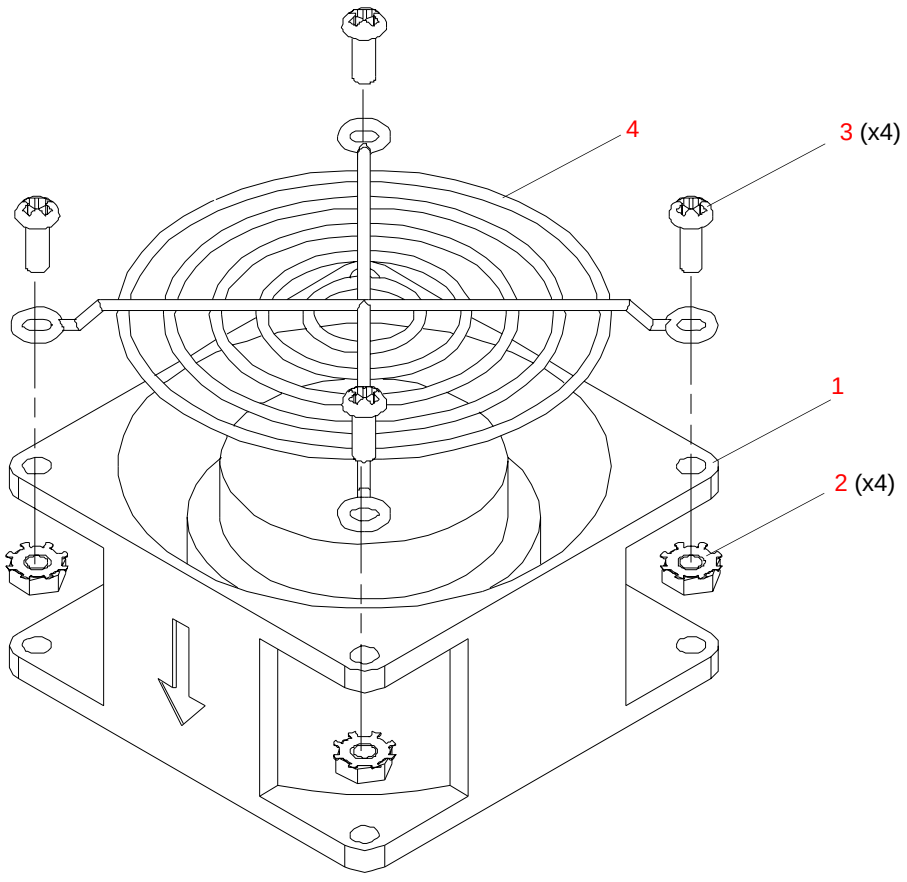


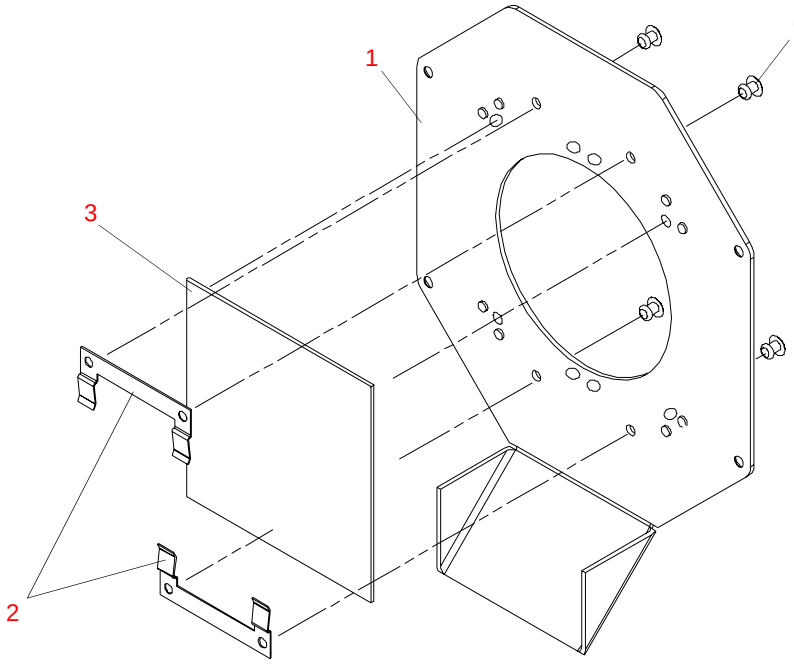
Figure 3-4: 80mm Fan Assembly

UV Filter Bulkhead Assembly

22.9678.0639 Rev G (VL3000)
22.9678.0617 Rev A (VL3000Q)

Refer to Figure 3-5

No.	Item	Qty.	UM.	Description
1	10.9678.0634	1	EA	UV FILTER BULKHEAD
2	10.9678.0648	2	EA	CLIP, UV GLASS
3	41.9678.0608	1	EA	UV/IR FILTER, 3.00" X 3.00" (VL3000 Only)
	41.9678.1160	1	EA	UV/IR FILTER, ENHANCED (VL3000Q Only)
4	53.6530.0002	4	EA	RIVET, 1/8 OD POP,.063-.125 GRIP, ALUM



UV Filter Installation

1. Install filter with marks indicating IR coating side of filter facing up and located outside of circular cutout in bulkhead.
2. Apply a drop of Loctite 5083 NUVA-SIL Curing Silicone to each corner of filter. Drop size to produce 0.25" diameter circle of adhesive when filter is secured.
3. Position UV filter in between 8 raised locating tabs on bulkhead and attach using UV glass clips and rivets as shown.

Be careful not to damage UV filter (chip, scratch, crack, etc.) during installation.

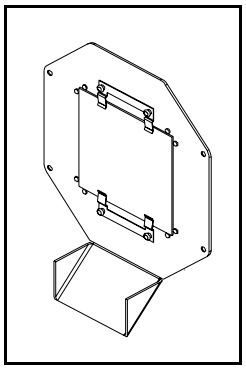


Figure 3-5: UV Filter Bulkhead Assembly

Spot Gobo Assembly

21.9678.0200 Rev K (Spot Only)

Refer to Figure 3-6

No.	Item	Qty.	UM.	Description
1	10.9678.0215	1	EA	BULKHEAD, GOBO MODULE FRONT
2	10.9678.0216	1	EA	BULKHEAD, GOBO MODULE REAR
3	10.9678.0225	4	EA	SHAFT, GOBO WHEEL
4	10.9678.0231	3	EA	PULLEY, MOTOR GOBO WHEEL DRIVE
5	10.9678.0232	3	EA	PULLEY, INSEX DRIVE 64 GROOVE
6	10.9678.0244	2	EA	MOUNT, INDEX SENSOR LONG
7	10.9678.0245	1	EA	MOUNT, INDEX SENSOR SHORT
8	10.9678.0246	3	EA	ADJUST PLATE, MOTOR
9	10.9678.0277	1	EA	SPACER, WHEEL/IRIS
10	21.9678.0210	2	EA	ASSY, ROTATING GOBO WHEEL
11	21.9678.0211	1	EA	ASSY, ROTATING EFFECTS WHEEL
12	21.9678.0243	2	EA	ASSY, MOTOR LONG SHAFT
13	21.9678.0270	1	EA	SUB-ASSY, IRIS
14	24.9663.3231	4	EA	PCB ASSY, INDEX SENSOR
15	24.9678.3240	3	EA	PCB ASSY, WHEEL POSITION SENSOR (changed 02-11-05)
-	25.9678.2209	1	EA	PCB/CABLE ASSY, GOBO INTERCONN (changed 06-28-06) **(Not Shown)**
16	44.9663.1202	2	EA	MOTOR, 17 2.42" SHAFT 11.8MH
17	44.9663.1766	2	EA	MOTOR, 17 1.24" SHAFT 11.8MH 5
18	53.5560.0187	12	EA	SCREW, 8-32 X .187 " SET CONE (changed 06-21-05)
19	53.6520.0375	8	EA	SCREW, 4-40 X 3/8" PPZ SEMS
20	53.6558.0009	4	EA	SCREW, 6-32 X 3/8" PPZ SEMS
21	53.5638.0252	8	EA	SCREW, 6-32 X 3/8" PFZ UNDERCUT HD
22	53.6613.0001	16	EA	SCREW, 6-32 X 1/2" PPZ
23	54.2057.0001	3	EA	BELT, TIMING MXL .080"PITCH 14
24	54.2058.0001	3	EA	BELT, TIMING MXL .080"PITCH 16
25	55.2150.0002	4	EA	STANDOFF, 1/4"HEX 6-32 1.187"L
26	55.2150.0003	4	EA	STANDOFF, 1/4"HEX 6-32 1.125"L
27	55.2178.0001	4	EA	CABLE ANCHOR MOUNT, #8 SCREW
28	53.6682.0002	6	EA	SCREW, 4-40 X 1/4" PPZ SEMS
29	55.6506.0025	1	EA	SPACER, 3/8"RND 1/8"LG .257" ID
30	55.6506.0026	1	EA	SPACER, 3/8"RND 31/32"LG .257" ID

No.	Item	Qty.	UM.	Description
31	53.6609.0001	4	EA	SCREW, 6-32 X 3/8" PFZ
32	55.6506.0030	1	EA	SPACER, 3/8" RND 3/8" LG .257" ID THRU ALUM
33	55.2110.0002	1	EA	WASHER, .400" OD .260 ID .010" THK FLAT SS (added 4-29-03)
34	10.9678.0457.02	2	EA	SPACER, RND, 3/8" OD, .257 ID, .190 LG, AL (added 4-29-03)
35	55.6520.0001	2	EA	WASHER WAVE SPRING .265" ID .367" OD .006" THK (added 4-29-03)
36	10.9678.0457.04	1	EA	SPACER, RND, 3/8"OD, .257 ID , .031 LG, AL (added 6-09-03)

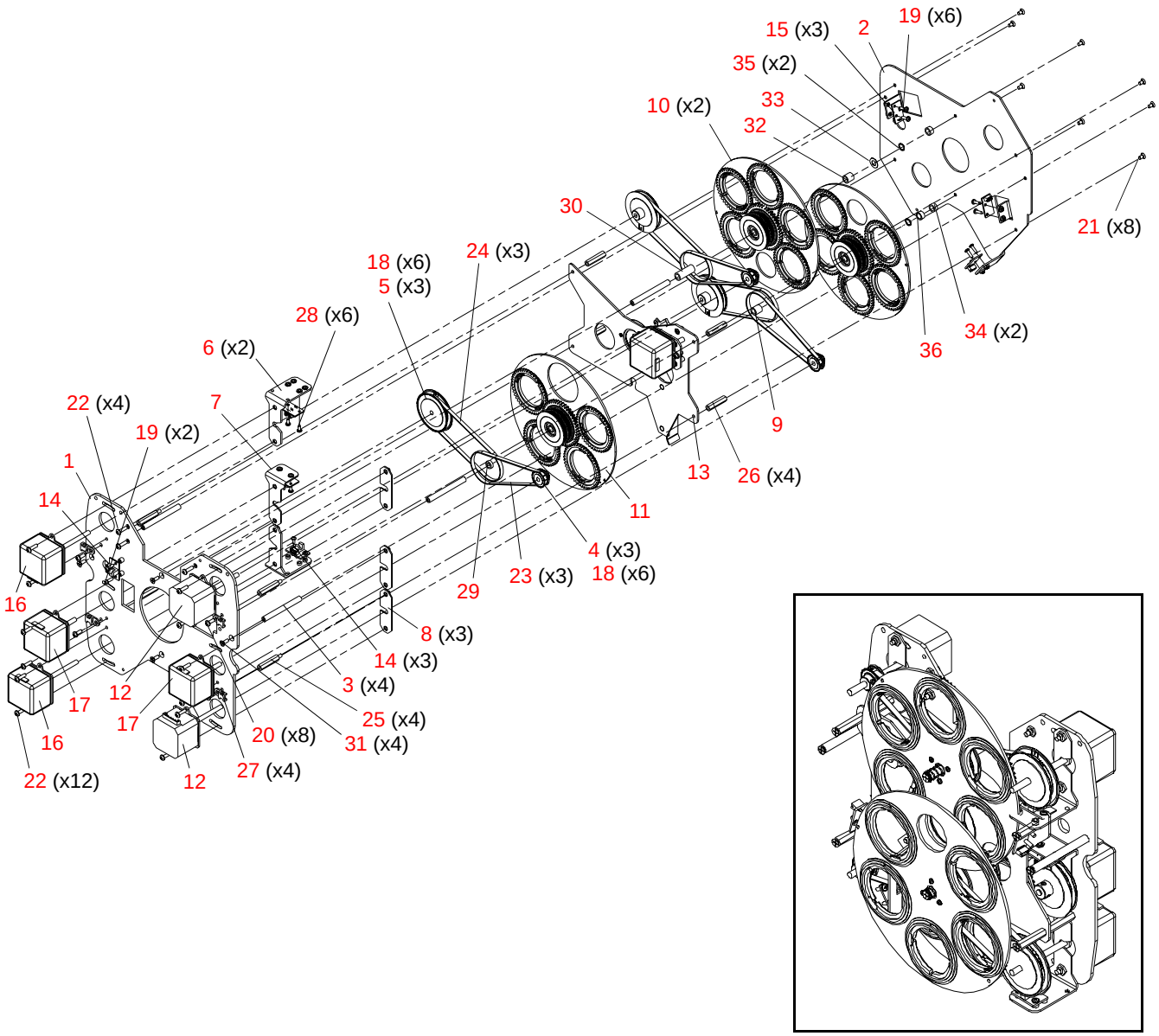


Figure 3-6: Spot Gobo Assembly

Rotating Gobo Wheel Assembly

21.9678.0210 Rev B

Refer to Figure 3-7

No.	Item	Qty.	UM.	Description
1	10.9663.1211	10	EA	SPACER, TEFLON GOBO GEAR
2	10.9663.1240	5	EA	BEARING, GOBO WHEEL BORE
3	10.9678.0220	1	EA	PLATE, ROTATING GOBO WHEEL
4	10.9678.0224	5	EA	RETAINING RING, PLANET
5	22.9678.0230	5	EA	ASSY, PLANET GEAR
5a	- 10.9678.0263	2	EA	CLIP WIRE, PLANET
5b	- 10.9678.0282	1	EA	PLANET GEAR, HOBBED CASTING
6	22.9678.0233	1	EA	SUN GEAR, MOLDED ELASTOMERIC INTEGRAL BEARING
7	22.9678.0234	1	EA	ASSY, PULLEY GOBO WHEEL HUB
7a	- 10.9678.0227	1	EA	PULLEY, HUB, GOBO WHEEL
7b	- 54.1259.0004	2	EA	BEARING, RAD. FLANGED .25" ID .625"OD .0005 (changed 6-26-03)
8	53.6650.0001	3	EA	SCREW, 2-56 X 5/16"
9	55.2256.0001	1	EA	MAGNET, 2:17 SMCO 2MM X 2MM X 3MM
10	10.9678.0250	1	EA	MAGNET TAPE

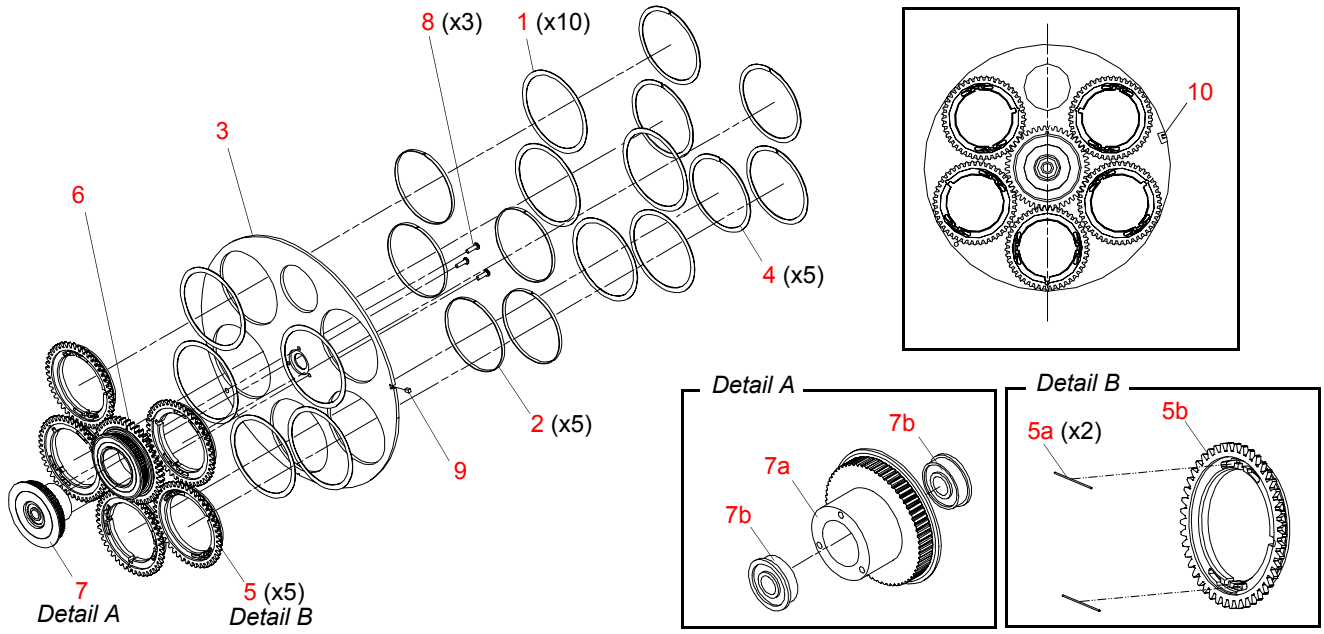


Figure 3-7: Rotating Gobo Wheel Assembly

Rotating Effects Wheel Assembly

21.9678.0211 Rev B

Refer to Figure 3-8

No.	Item	Qty.	UM.	Description
1	10.9663.1211	8	EA	SPACER, TEFLON GOBO GEAR
2	10.9663.1240	4	EA	BEARING, GOBO WHEEL BORE
3	10.9678.0221	1	EA	PLATE, ROTATING EFFECTS WHEEL
4	10.9678.0224	4	EA	RETAINING RING, PLANET
5	22.9678.0230	4	EA	ASSY, PLANET GEAR
5a	- 10.9678.0263	2	EA	CLIP WIRE, PLANET
5b	- 10.9678.0282	1	EA	PLANET GEAR, HOBBED CASTING
6	22.9678.0233	1	EA	SUN GEAR, MOLDED ELASTOMERIC INTEGRAL BEARING
7	22.9678.0234	1	EA	ASSY, PULLEY GOBO WHEEL HUB
7a	- 10.9678.0227	1	EA	PULLEY, HUB, GOBO WHEEL
7b	- 54.1259.0001	2	EA	BEARING, RAD. FLANGED .25" ID .625"OD
8	53.6650.0001	3	EA	SCREW, 2-56 X 5/16"
9	55.2256.0001	1	EA	MAGNET, 2:17 SMCO 2MM X 2MM X 3MM
10	10.9678.0250	1	EA	MAGNET TAPE .375"W x .625" L x .0035" THICK (changed 07-15-03)

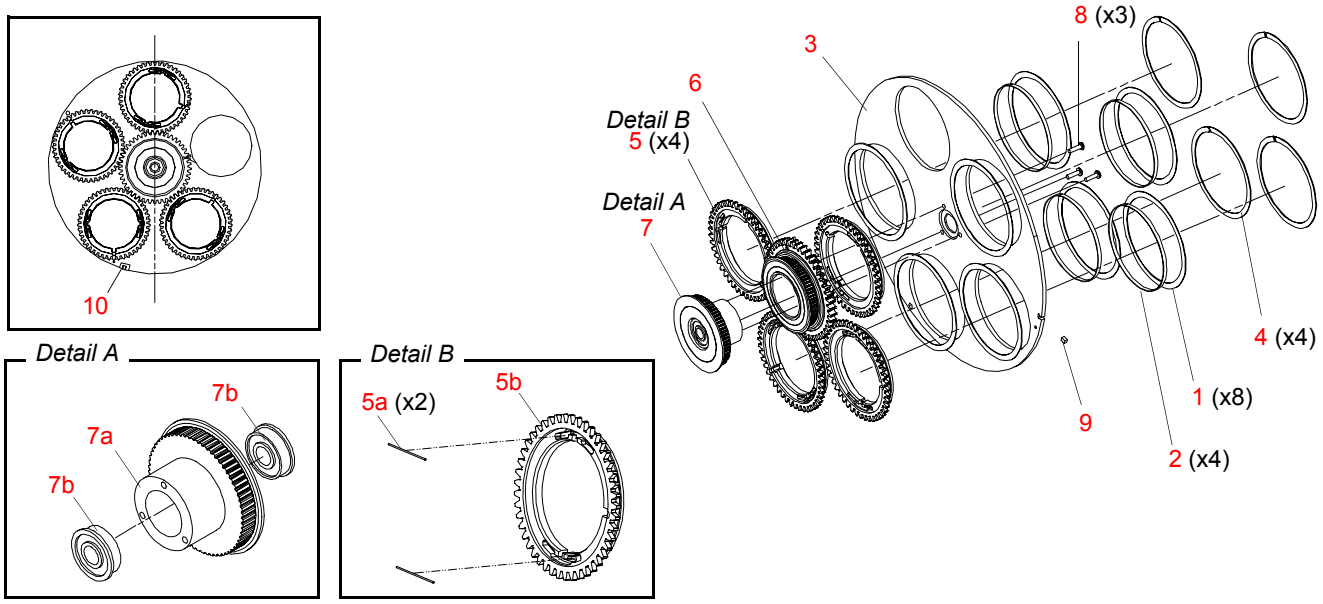


Figure 3-8: Rotating Effects Wheel Assembly

Long Shaft Motor Assembly

21.9678.0243 Rev 0

Refer to Figure 3-9

No.	Item	Qty.	UM.	Description
1	10.9678.0330	1	EA	PLATE, MOTOR ADAPTER
2	44.9678.0249	1	EA	MOTOR, STEPPER 42MM X 34MM 60MM SHAFT
3	53.6513.0002	4	EA	SCREW, 3MM X 5MM LG PFZ METRIC

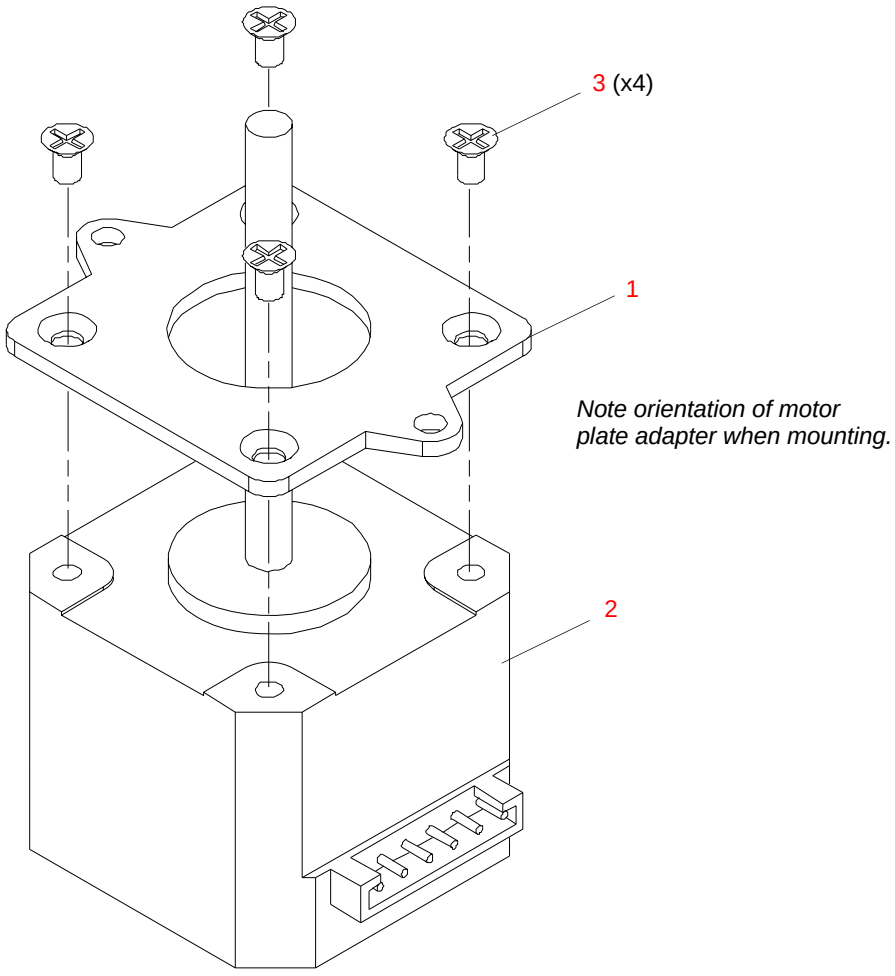


Figure 3-9: Long Shaft Motor Assembly

Iris Assembly

21.9678.0270 Rev A

Refer to Figure 3-10

No.	Item	Qty.	UM.	Description
1	10.9678.0272	1	EA	BULKHEAD, IRIS
2	10.9678.0273	1	EA	MOTOR MOUNT, IRIS
3	10.9678.0274	1	EA	APERTURE, IRIS
4	10.9678.0276	1	EA	CRANK, IRIS
5	10.9678.0279	1	EA	DIVERTER, GOBO AIR
6	10.9678.0280	1	EA	ADJUSTABLE IRIS STOP (changed 09-17-03)
7	22.9678.0271	1	EA	LINK ASSY, IRIS
7a	- 53.6605.0004	1	EA	STUD, 2-56 X 1.0" LG FULL THREAD STAINLESS STEEL
7b	- 54.1217.0005	2	EA	KWIK LINK, 2-56 SPRING STEEL
8	22.9678.0275	1	EA	IRIS, 49MM OD
9	44.9678.0278	1	EA	MOTOR, 17 .94" SHAFT 11.8MH 5.5OHM
10	53.5558.0125	2	EA	SCREW, 8-32 X .125 " SET SS
11	53.6513.0042	3	EA	SCREW, M2 X .4 X 4MM LG PFB METRIC
12	53.6530.0013	2	EA	RIVET, 1/8"OD POP 0.328" AL CSK HD STL MNDRL
13	53.6558.0001	2	EA	SCREW, 6-32 X 3/8" PPZ
14	53.6609.0500	3	EA	SCREW, 6-32 X 1/2" LG PFZ
15	55.2211.0002	1	EA	STANDOFF, 1/4 " RND 6-32 0.188"LG (changed 09-17-03)
16	55.6538.0005	4	EA	WASHER, 0.250"OD 0.65"ID 0.015"THK TEFLON

Iris Assembly (continued)

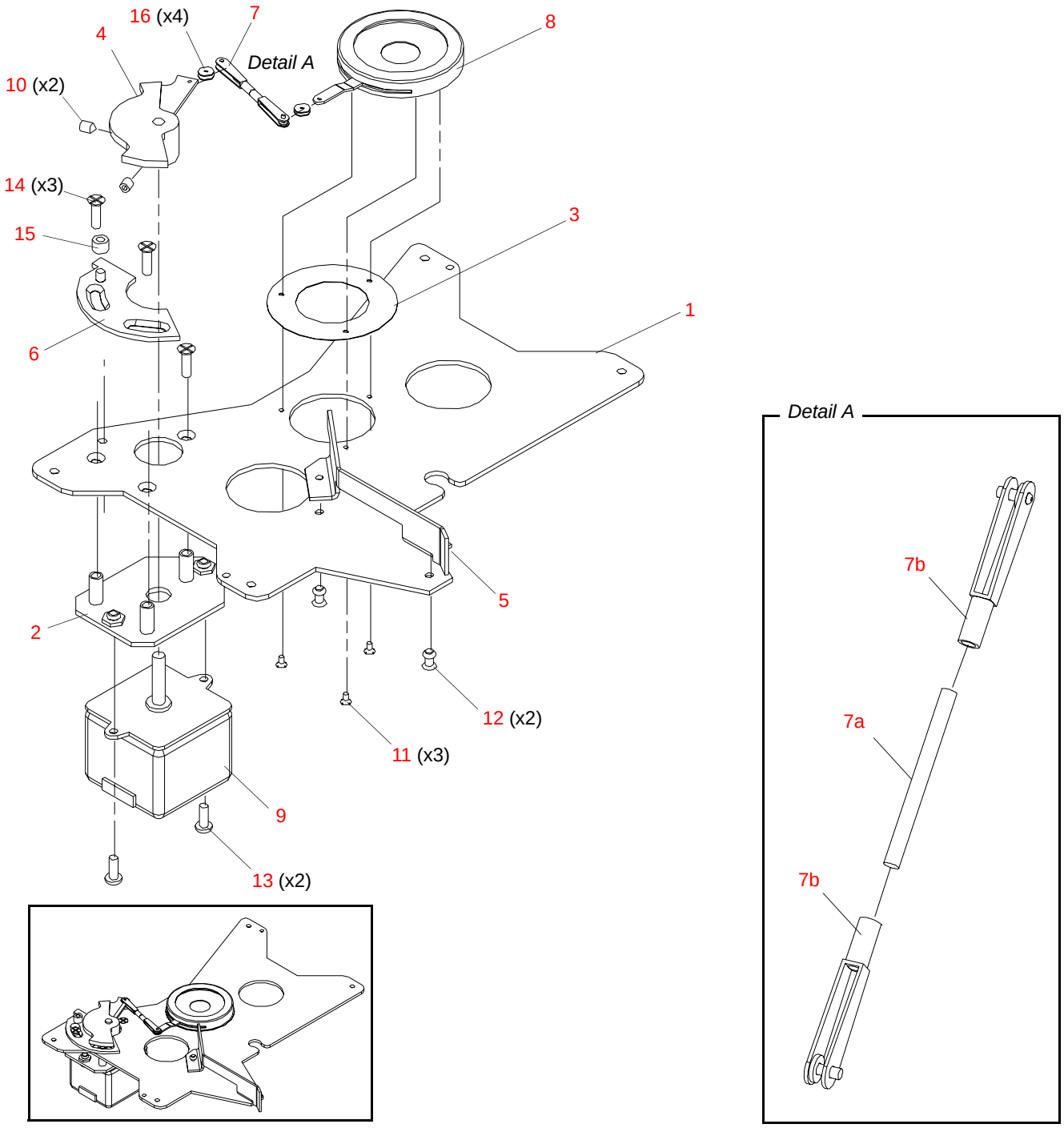


Figure 3-10: Iris Assembly

Hot Box Assembly

21.9678.8640.01 Rev H (VL3000 Spot)
21.9678.8640.02 Rev H (VL3000 Wash)
21.9678.8698.01 Rev F (VL3000Q Spot)
21.9678.8698.02 Rev F (VL3000Q Wash)

Refer to Figure 3-11

No.	Item	Qty.	UM.	Description
1	10.9678.0043.03	1	EA	LABEL PLATE, VL3000 BACKCAP, BLACK
	10.9678.0043.01	1	EA	LABEL PLATE, BACKCAP, VL3000 QUIET
2	10.9678.0641	1	EA	HOT BOX
3	10.9686.0642	1	EA	BACKCAP PLATE
4	10.9678.0643	1	EA	LAMP ADJUST STOP
5	10.9678.0645	3	EA	KNOB, LAMP ADJ MOLDED
6	10.9678.0646	1	EA	TILT PLATE, XYZ ADJUSTMENT
7	10.9678.1648	4	EA	GASKET, PRIMARY REFLECTOR
8	10.9678.2647	4	EA	CLAMP, PRIMARY REFLECTOR
9	12.9678.7155	1	EA	REFLECTOR, PRIMARY SMOOTH (**Wash Only**)
	12.9678.7151	1	EA	REFLECTOR, PRI 40 LUNE DUAL CURVATURE (**Spot Only**)
-	25.9661.1522	1	EA	CABLE ASSY, HEAD TO BACKCAP GROUND (**Not Shown**)
-	25.9678.0789	1	EA	CABLE ASSY, IGNITOR TO LAMP SOCKET (**Not Shown**)
10	53.2030.0001	3	EA	NUT, ACORN 10-32THD 3/8 WIDE, 3/16 THD DP BLK ZINC
11	53.5508.0375	2	EA	SCREW, 8-32 X 3/8" PPSS
12	53.6530.0013	8	EA	RIVET, 1/8"OD .063" - .125"GL CSK HD ALUM
13	53.6582.0001	4	EA	SCREW, 6-32 X 3/4" PFZ
14	55.2233.0003	4	EA	RETAINER, PUSH-ON TYPE
15	55.2233.0006	4	EA	STUD, 1/4 TURN OPR .455L STEEL
16	55.6546.0004	3	EA	WASHER, TEFLON, .201ID X .438O
17	55.6568.0077	7	EA	SPRING, CPRSN .300"OD .625"LG .035"WIRE DIA SS
18	55.6759.0003	4	EA	STANDOFF, PEM 6-32 X .562 LG, SST
19	71.2561.0002	1	EA	LAMPHOLDER, SFC10-4 WITH PREFOCUS, SHARX (changed 12-06-06)

Hot Box Assembly (continued)

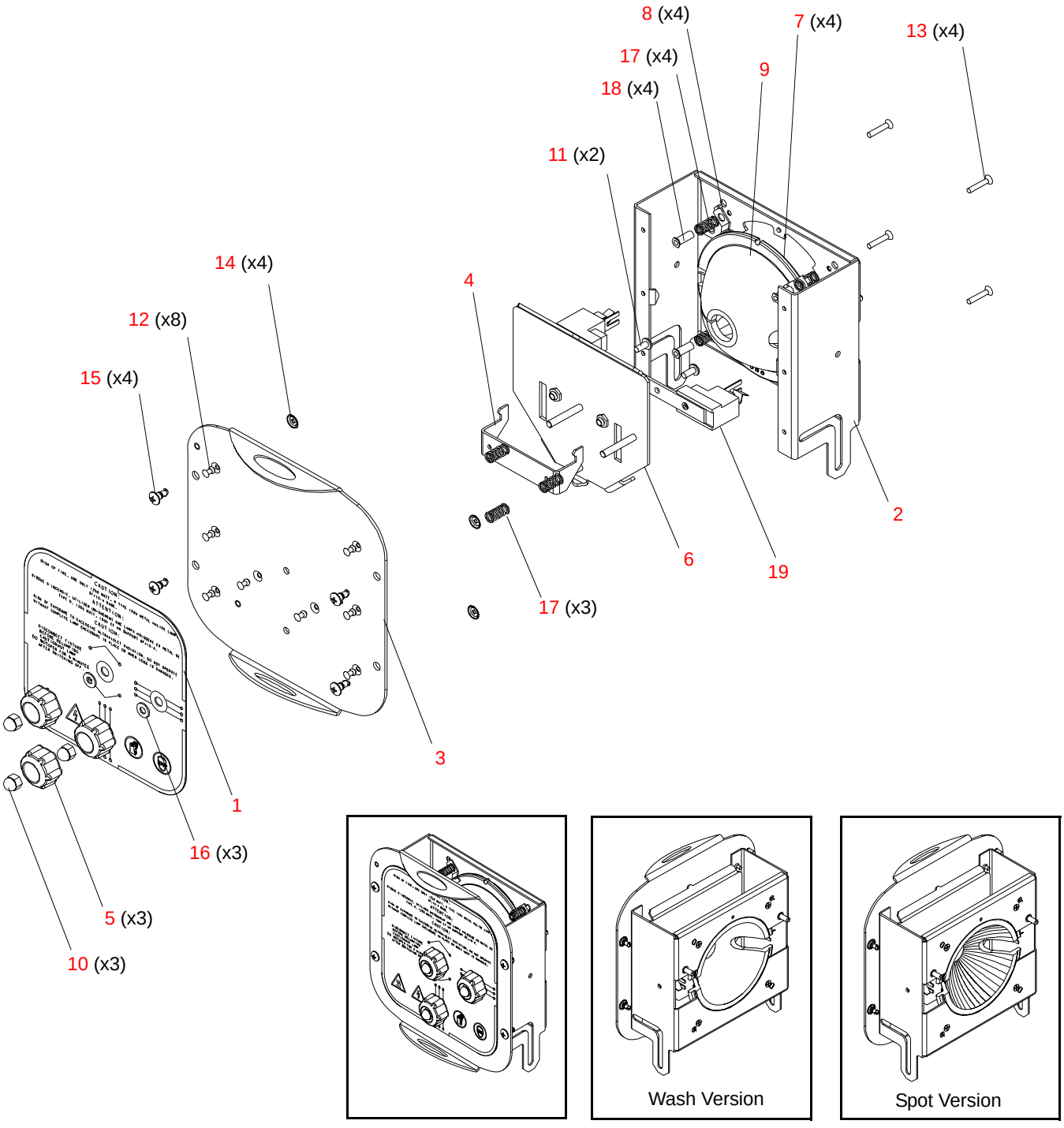


Figure 3-11: Hot Box Assembly

Gobo/Color Fan Assembly - VL3000Q Only

21.9678.0659.01 Rev D

Refer to Figure 3-13

No.	Item	Qty.	UM.	Description
1	10.9678.0665	1	EA	SPRING, EXTENSION ELONGATED HO
2	22.9678.0661	1	EA	ASSY, FAN TRAY
3	22.9678.0665	1	EA	DUCT ASSY
4	23.9678.0699	2	EA	FAN ASSY, HEAD FRONT
5	53.5506.1375	6	EA	SCREW, 6-32 X 1 3/8"LG PPB
6	53.6519.0001	2	EA	SCREW, 4-40 X 5/8" PPZ
7	53.6530.0006	2	EA	RIVET, 1/8" OD POP .188-.250GL
8	55.2179.0003	2	EA	SADDLE, CABLE, .75 X .75" 4-WAY ADH BACK WHT
9	55.2186.0001	2	EA	CABLE TIE, .10"WD X 4" LG SMALL (**not shown**)
10	55.6538.0002	2	EA	WASHER, #6 NYLON NATURAL
11	55.6818.0002	1	EA	STANDOFF, 45 DEG NYLON 6/6 KUR
12	74.1099.0001	1	EA	SWITCH, MINIATURE 5AMP 150DEG

Gobo/Color Fan Assembly - VL3000Q Only (continued)

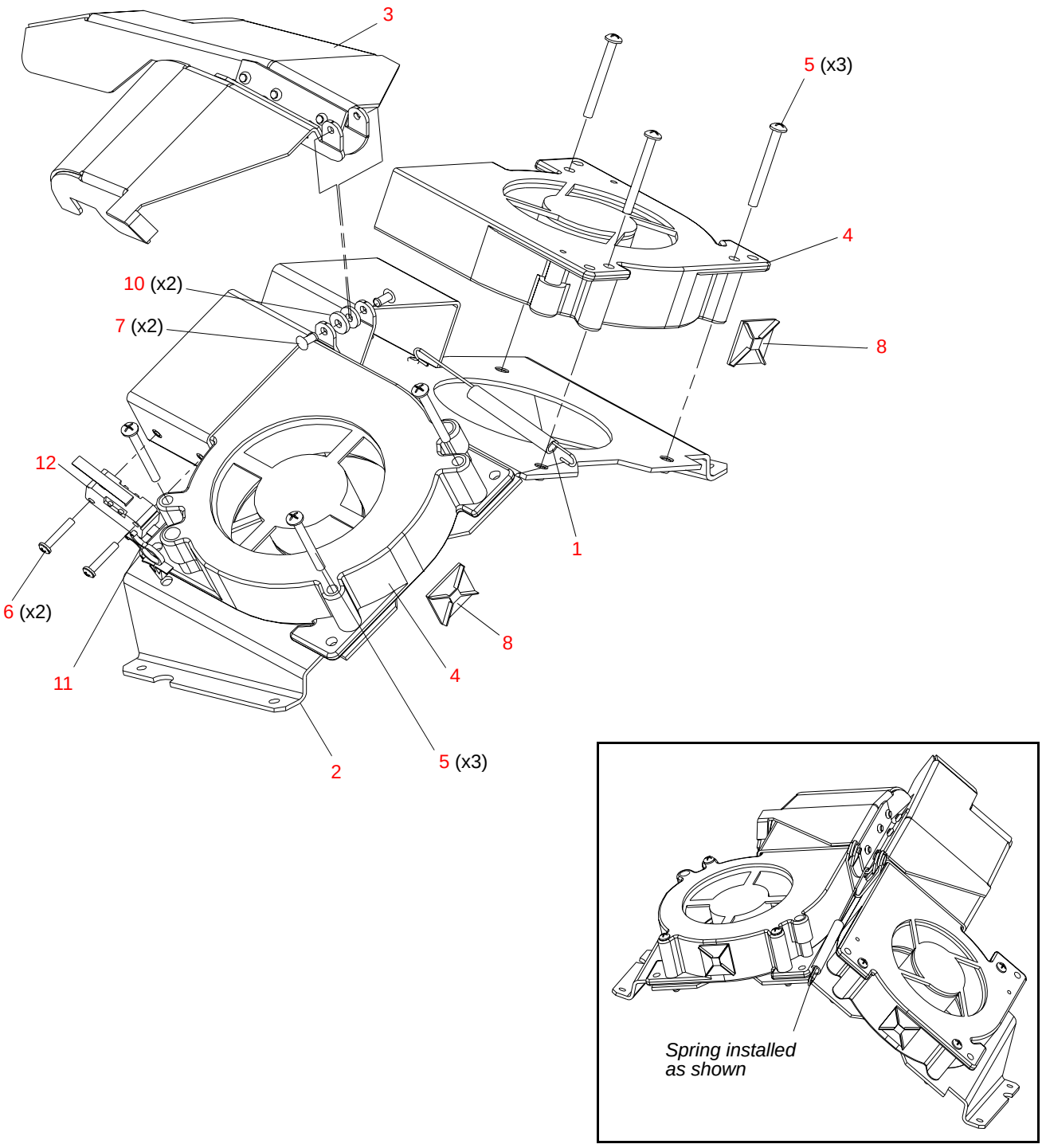


Figure 3-12: Gobo/Color Fan Assembly - VL3000Q

Dual Fan Tray/Duct Assembly - VL3000 Only

21.9678.0660.01 Rev B

Refer to Figure 3-13

No.	Item	Qty.	UM.	Description
1	10.9678.0665	1	EA	SPRING, EXTENSION ELONGATED HOOK (changed 06-29-06)
2	22.9678.0661	1	EA	ASSY, FAN TRAY
3	22.9678.0665	1	EA	DUCT ASSY
4	23.9678.0684	2	EA	FAN ASSY, HEAD FRONT
5	53.5506.1375	6	EA	SCREW, 6-32 X 1 3/8"LG PPB
6	53.6519.0001	2	EA	SCREW, 4-40 X 5/8" PPZ
7	53.6530.0006	2	EA	RIVET, 1/8"OD POP .188-.250GL
8	55.6538.0002	2	EA	WASHER, #6 NYLON NATURAL
9	55.6818.0002	1	EA	STANDOFF, 45 DEG NYLON 6/6 KUR
10	74.1099.0001	1	EA	SWITCH, MINIATURE 5AMP 150DEG

Dual Fan Tray/Duct Assembly - VL3000 Only (continued)

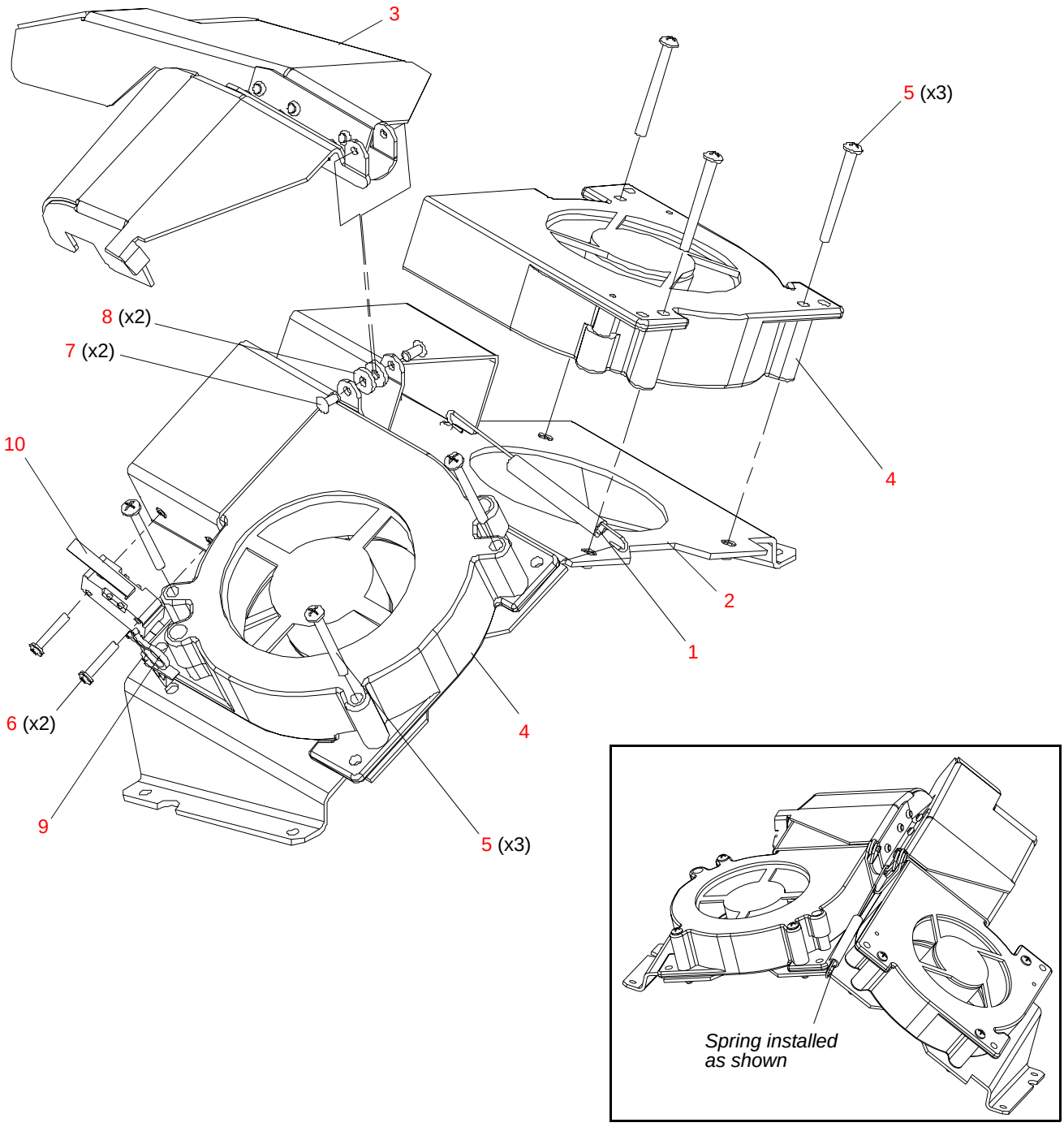


Figure 3-13: Dual Fan Tray/Duct Assembly - VL3000

Head Front Fan Assembly

23.9678.0684 Rev 0

Refer to Figure 3-14

No.	Item	Qty.	UM.	Description
1	40.7125.0001	1	EA	FAN, 24V FAL6F24LH
2	52.6523.0002	1	EA	CONN, HOUSING 2POS PLUG SHROUDED WIRE TO WIRE
3	52.8347.0001	2	EA	CONTACT, 24-30AWG MALE CRIMP

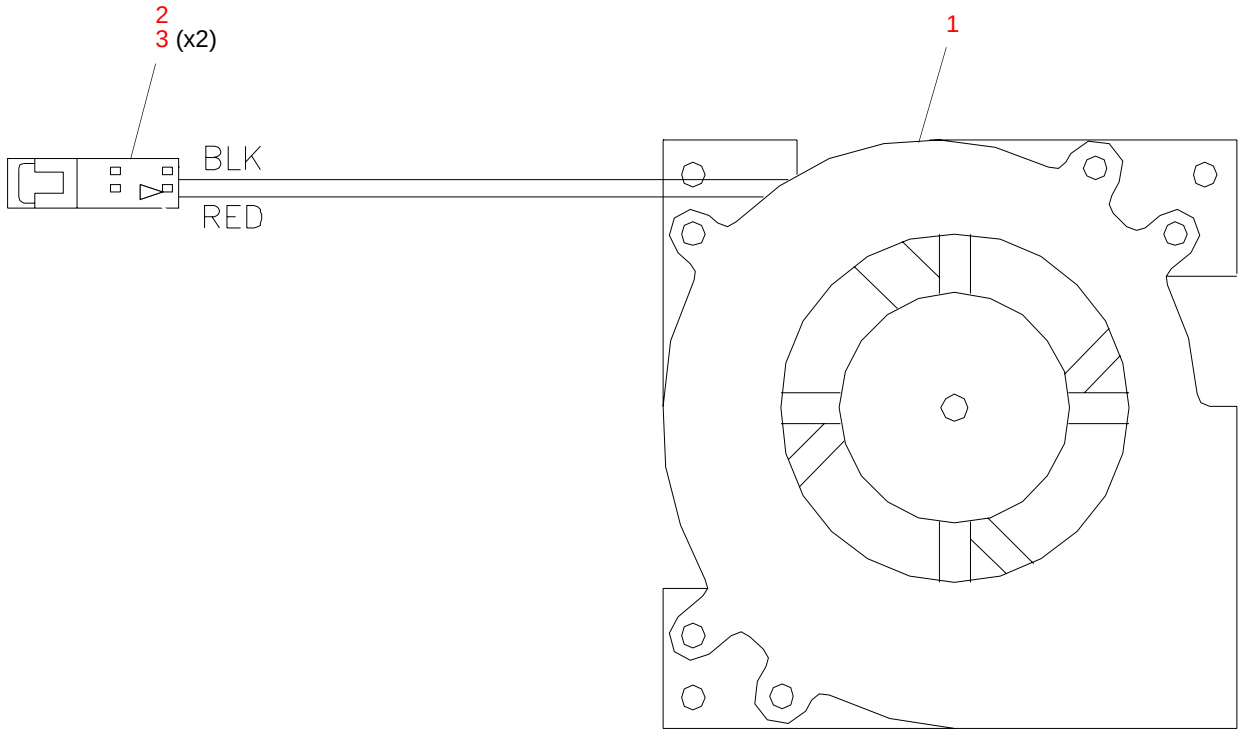


Figure 3-14: Head Front Fan Assembly

Head Front Fan Assembly - VL3000Q Only

23.9678.0699 Rev A

Refer to Figure 3-14

No.	Item	Qty.	UM.	Description
1	40.7125.0001	1	EA	FAN, 24V FAL6F24LH
2	52.6523.0002	1	EA	CONN, HOUSING 2POS PLUG SHROUDED WIRE TO WIRE
3	52.8347.0001	2	EA	CONTACT, 24-30AWG MALE CRIMP
4	55.2186.0001	1	EA	CABLE TIE, .10 X 4" SMALL
5	55.2268.0125	1	EA	HEATSHRINK, 1/8" CLEAR KYNAR UL 600V 150 DEG C
6	60.8440.6801	1	EA	RESISTOR, 10W, 5%, 68 OHM WIREWOUND

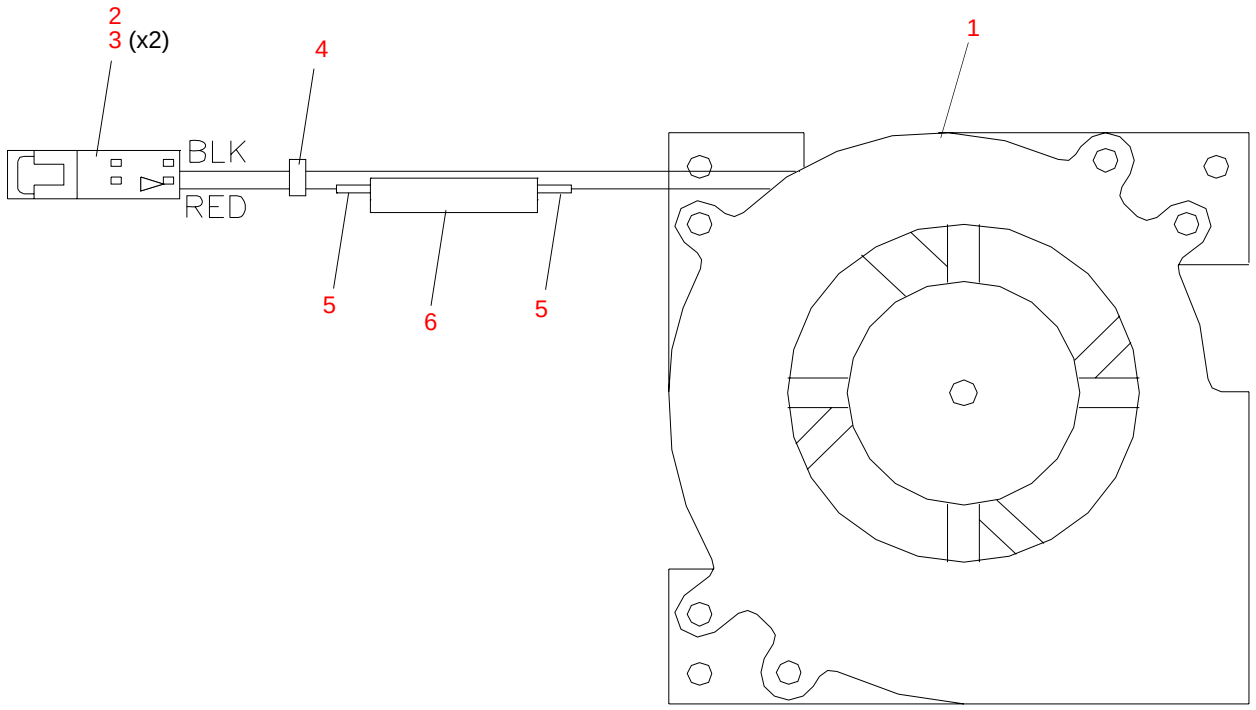


Figure 3-15: Head Front Fan Assembly - VL3000Q Only

Transfer Fan Assembly

21.9678.0678.01 Rev D (Spot)
21.9678.0678.02 Rev D (Wash)

Refer to Figure 3-16

No.	Item	Qty.	UM.	Description
1	10.9678.0679	1	EA	TRANSFER FAN TRAY
2	23.9678.0695	1	EA	FAN ASSY, TRANSFER
3	53.6571.0003	3	EA	SCREW, 6-32 X 1-1/2"LG PPB (changed 07-16-07)
4	55.6543.0001	2.12	FT	GROMMET STRIP, SERRATED POLYETHYLENE
5	55.6769.0004	3	EA	TWIST-LOK 0.55" ID NOM WHT 85 C MAX FLAME RET (added 11-11-03) (**Spot Only**)
	55.6769.0004	2	EA	TWIST-LOK 0.55" ID NOM WHT 85 C MAX FLAME RET (added 11-11-03) (**Wash Only**)

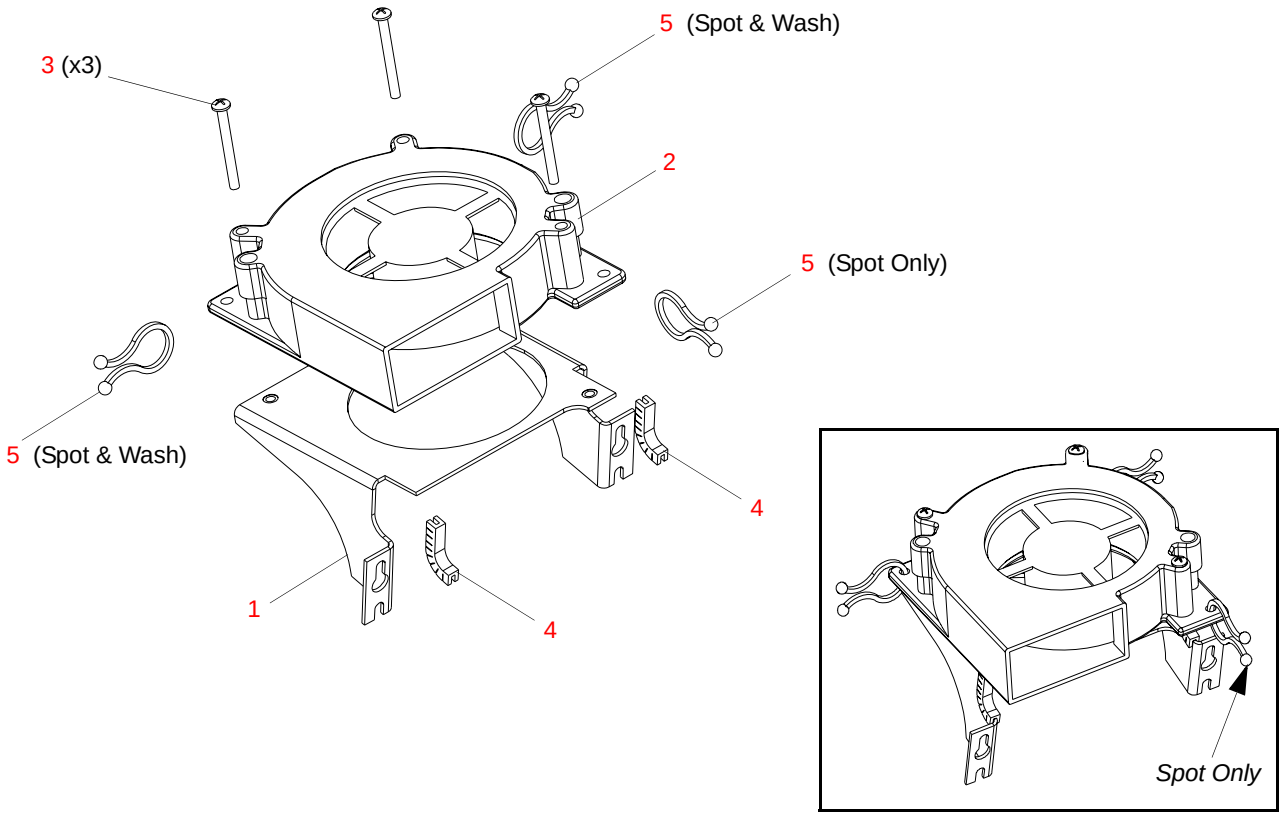


Figure 3-16: Transfer Fan Assembly

Spot Optic Assembly

22.9678.0103 Rev S (Spot Only)

Refer to Figure 3-17 and Figure 3-18

No.	Item	Qty.	UM.	Description
1	10.9678.1131	1	EA	FORWARD PULLEY SHAFT (changed 12-15-04)
2	10.9678.0127	1	EA	PULLEY, IDLER
3	10.9678.0129	2	EA	SPACER, ROLLER CAM
4	10.9678.0153	1	EA	CABLE CLAMP, CAST
5	10.9678.0156	2	EA	BARREL STRAP, G1 & G2
6	10.9678.0157	1	EA	BARREL STRAP, G3
7	10.9678.0171	1	EA	SHAFT, CAM PULLEY
8	10.9678.1185	1	EA	LIGHT BAFFLE #2
9	10.9678.1186	1	EA	LIGHT BAFFLE #3
10	10.9678.1191	1	EA	LIGHT BAFFLE, G3
11	12.9678.1174	1	EA	LENS MOUNT, MACHINE G3
12	12.9678.1179.01	1	EA	LENS MOUNT, MACHINE G1
13	12.9678.1179.02	1	EA	LENS MOUNT, MACHINE G2
14	21.9678.0110	1	EA	ASSY, ZOOM BOX
15	21.9678.0113	1	EA	ASSY, RAIL & CARRIAGE
16	22.9678.1181	1	EA	LENS ASSY, GROUP 1
17	22.9678.0182	1	EA	LENS ASSY, GROUP 2
18	22.9678.0183	1	EA	LENS ASSY, GROUP 3
19	22.9678.0199	1	EA	ASSY, LENS MOUNT G4
20	22.9678.1103	1	EA	ASSY, EDGE BEARING RIGHT
21	22.9678.1105	1	EA	ASSY, EDGE BEARING LEFT
22	22.9678.1106	1	EA	ZOOM CAM ASSY
23	22.9678.1113	1	EA	ASSY, ZOOM MOTOR TENSIONING
24	22.9678.1115	1	EA	INTERCONNECT, LIGHT SHIELD
25	22.9678.1190	1	EA	LID ASSY, ZOOM BOX (changed 11-05-03)
	- 12.9678.1189	1	EA	LID, ZOOM BOX
	- 53.2008.0006	1	EA	NUT, PUSH #6
	- 53.6522.0001	1	EA	SCREW, 6-32 X 1/4" PPZ
	- 55.3303.0006	1	EA	WASHER, #6 LOCK INT. TOOTH SS

No.	Item	Qty.	UM.	Description
26	23.9678.1120	1	EA	LINEAR ACTUATOR ASSEMBLY
	- 44.9678.0119	1	EA	LINEAR ACTUATOR EDGE DRIVE
	- 52.6467.0004	1	EA	4 POS 30-24 AWG CRIMP PHR
	- 52.6467.0024	4	EA	CONTACT, SOCKET 30-24AWG CRIMP (REEL) PH (JST)
27	24.9678.3112	1	EA	PCB ASSY, VL3000 ZOOM SENSOR
28	53.2004.0002	1	EA	NUT, 8-32 KEPS ZINC PLATE
29	53.2213.0001	7	EA	NUT, #6 KEPS (changed 03-24-04)
30	53.5564.0250	2	EA	SCREW, 6-32 X 1/4" PFB UNDERCUT (added 04-07-06)
31	53.5604.0375	5	EA	SCREW, 4-40 X 3/8" PPB (changed 03-24-04)
32	53.6513.0023	6	EA	SCREW, M3 X 8MM LG PFZ METR
33	53.6558.0009	17	EA	SCREW, 6-32 X 3/8" SEMS (changed 03-24-04)
34	53.6558.0016	1	EA	SCREW, 6-32 X 3/4" LG PPS SEMS (changed 3-03-04)
35	53.6596.0002	4	EA	SCREW, 4-40 X 5/16" LG PPZ SEMS (changed 3-03-04)
36	53.6609.0001	6	EA	SCREW, 6-32 X 3/8" PFZ
37	53.6613.0008	4	EA	SCREW, 6-32 X 1/2" LG PPZ SEMS (added 3-03-04)
38	53.6614.0003	2	EA	SCREW, 6-32 X 5/8" PFZ
39	53.6617.0003	1	EA	SCREW, 6-32 X 1" PPB SEMS (changed 3-03-04)
40	53.6682.0025	2	EA	SCREW, 8-32 X 5/8" LNG PPZ SEMS (changed 11-19-03)
41	54.1261.0001	6	EA	BUSHING, LOW DAMP THERMOPLASTIC .189" ID .5" OD
42	55.2234.0001	1	EA	RING, RETAINING E-STYLE GRV.188 DIA (changed 02-06-05)
43	54.2053.0001	1	EA	MXT T BELT PULLEY, 20GRV .25WD
44	54.2054.0001	1	EA	BELT, TIMING MXL .080 PITCH 235 G, 3/16" WIDE, POLYU/KEVLAR
45	54.1262.0001	2	EA	BEARING, FLANGED EXTENDED .1875 BORE (changed 12-15-04)
46	55.2283.0001	2	EA	SHIM, SPACER .253" IDX, .010" THK
47	55.6503.0004	3	EA	WASHER, #8 FLAT ZINC (changed 03-24-04)
48	55.6528.0001	5	EA	WASHER, #6 FLAT ZINC
49	55.6578.0073	1	EA	SPRING, EXTSN .375"OD
50	55.6846.0001	2	EA	CAM FOLLOWER, 3MM DIA STUD
51	10.9678.1140	1	EA	SHOCK PAD, G1 (added 12-15-04)
52	10.9678.1141	1	EA	BACKING PLATE, SHOCK PAD, G1 (added 12-15-04)

Spot Optic Assembly (continued)

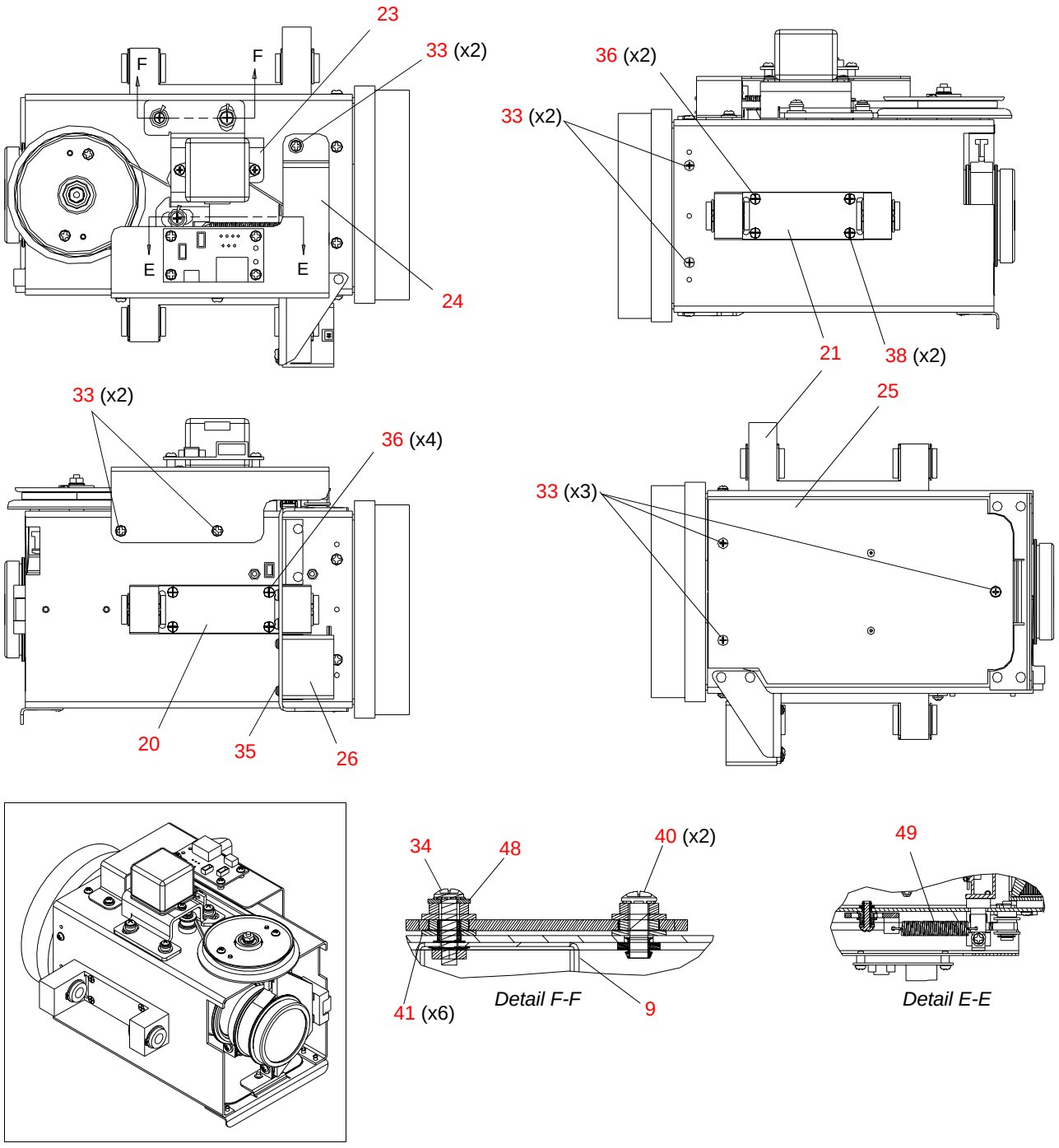


Figure 3-17: Spot Optic Assembly View 1

Spot Optic Assembly (continued)

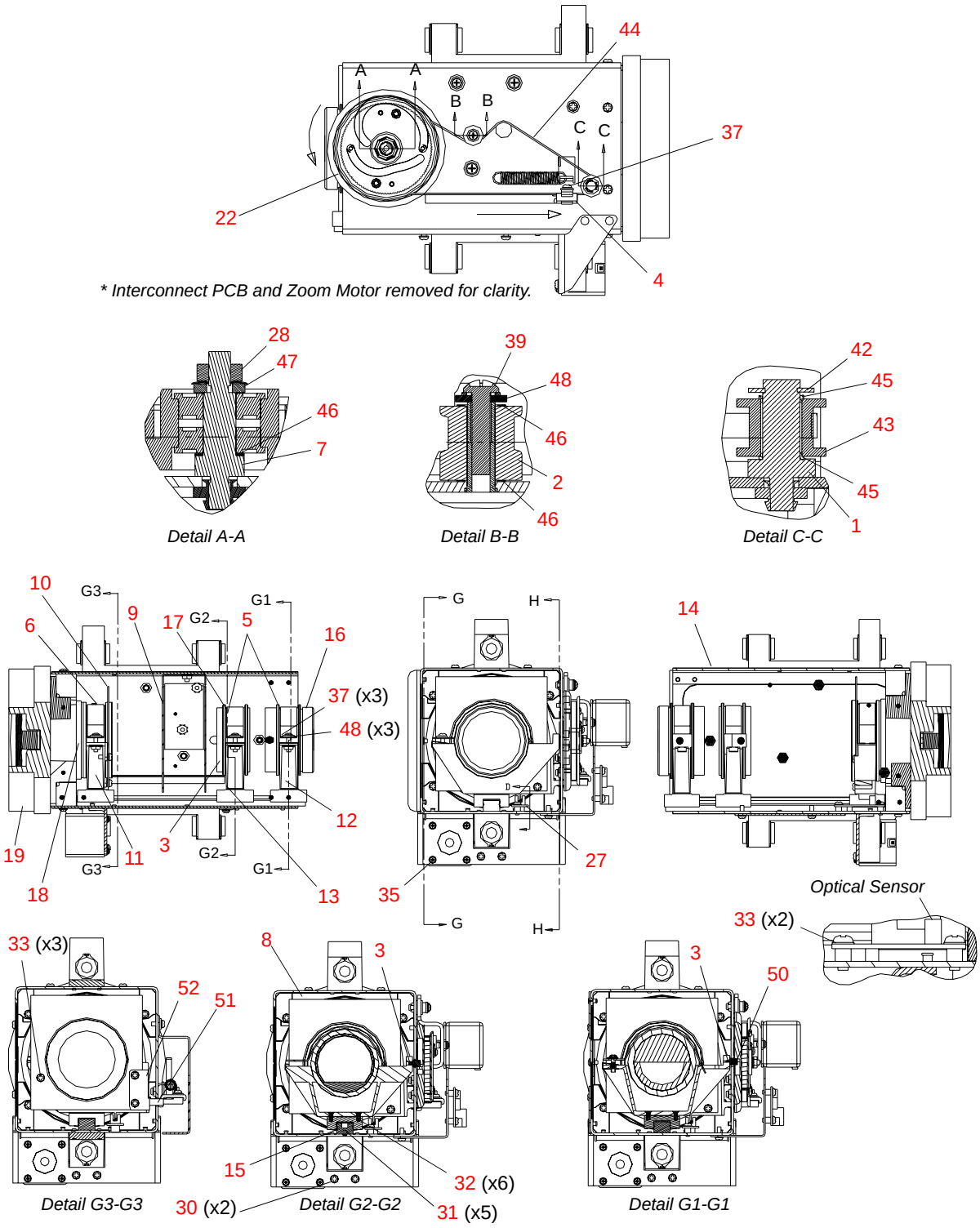


Figure 3-18: Spot Optic Assembly View 2

Group 4 Lens Mount Assembly

22.9678.0199 Rev 0

Refer to Figure 3-19

No.	Item	Qty.	UM.	Description
1	12.9678.0198	2	EA	RING BLOCK, MACHINED G4
2	22.9678.0174	1	EA	LENS ASSY, GROUP 4
3	53.6558.0001	4	EA	SCREW, 6-32 X 3/8" PPZ
4	55.3303.0006	4	EA	WASHER, #6 LOCK INT.TOOTH SS
5	55.6763.0500	4	EA	PIN, DOWEL .5"LG .125"DIA 303SS

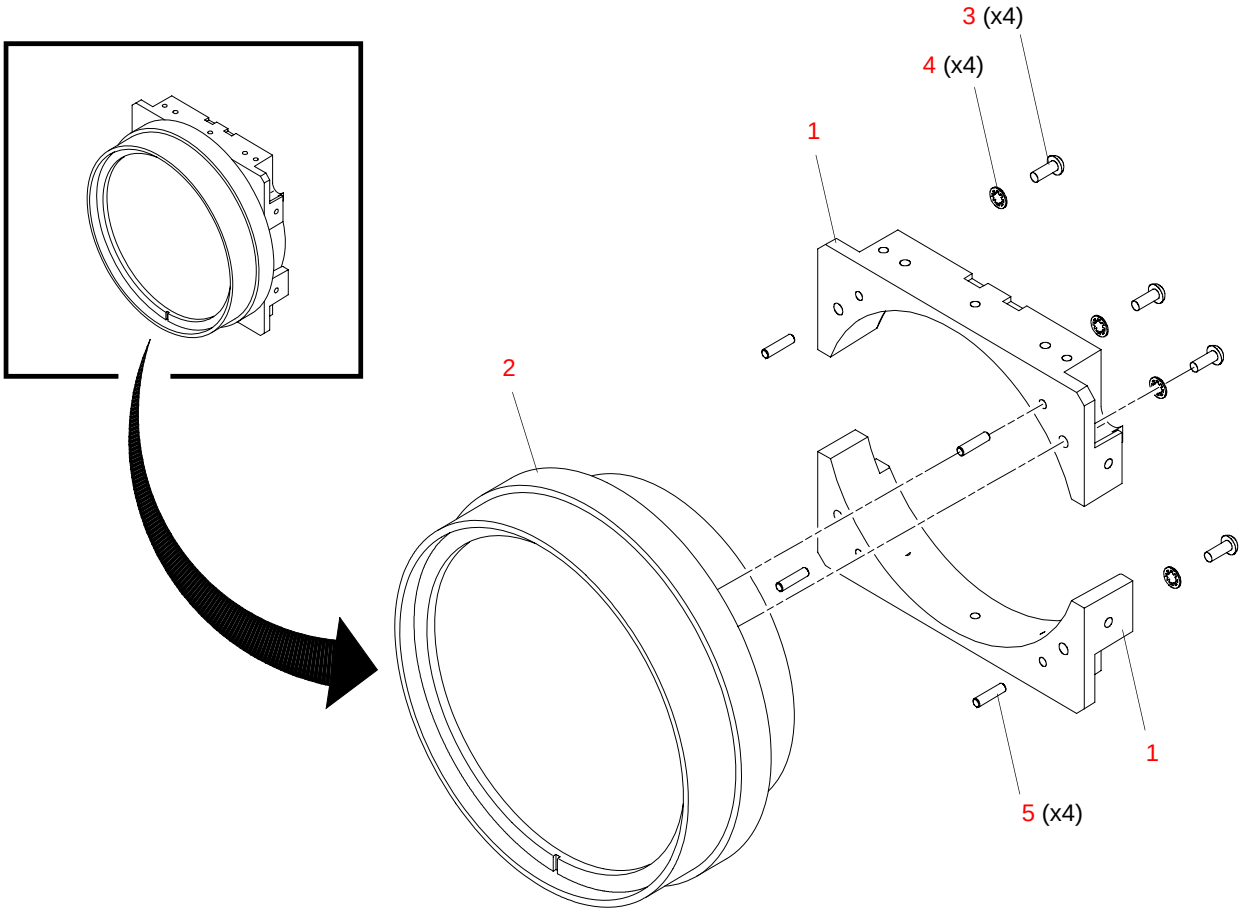


Figure 3-19: Group 4 Lens Mount Assembly

Right Edge Bearing Assembly

22.9678.1103 Rev C

Refer to Figure 3-20

No.	Item	Qty.	UM.	Description
1	12.9678.1102	1	EA	EDGE BEARING, MACHINED CASTING RIGHT
2	54.2056.0001	4	EA	RING, RETAINING EXTERNAL 19MM
3	55.6776.0010	2	EA	LINEAR BUSHING, 10MM STEEL W/PHENOLIC CAGE

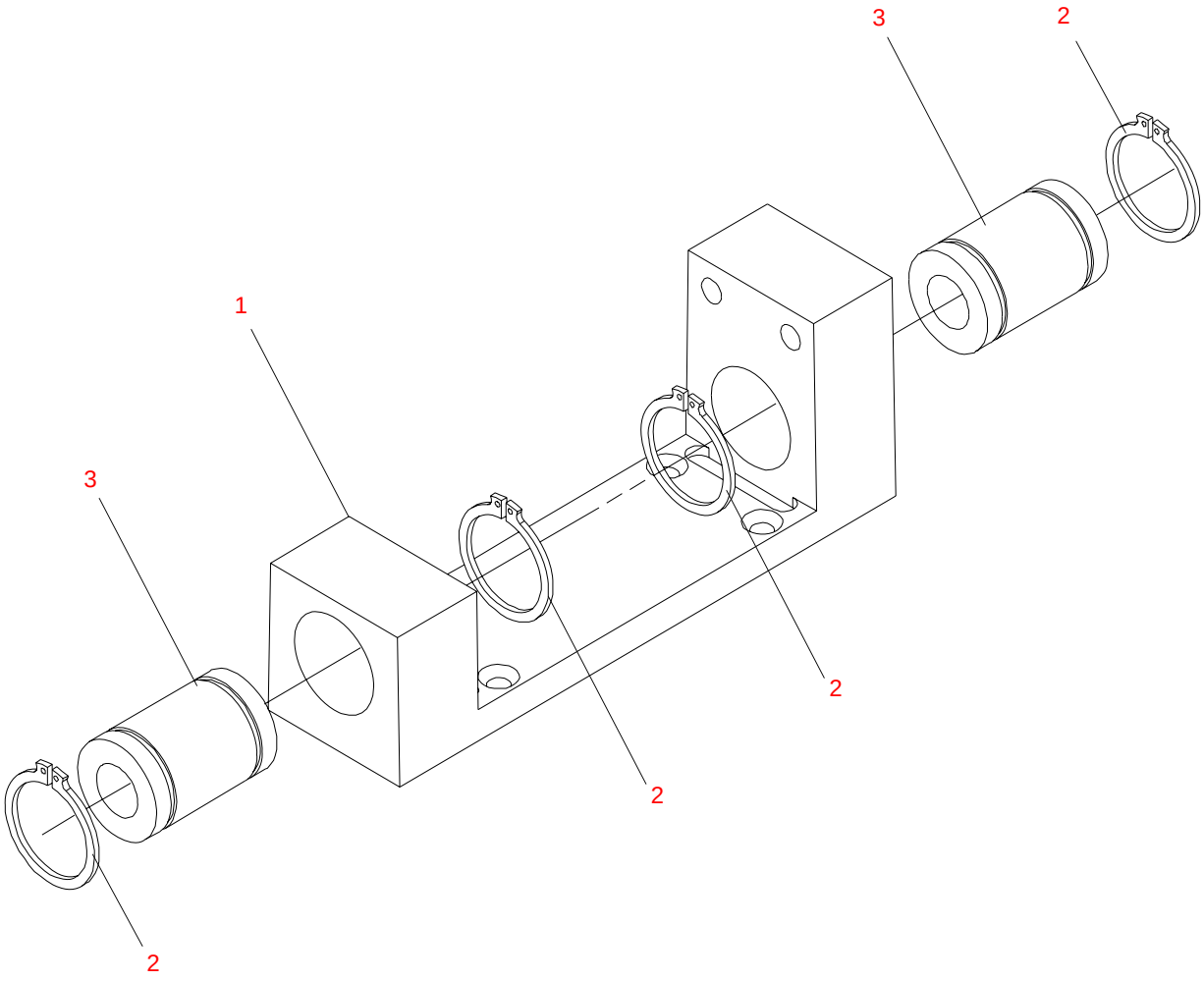


Figure 3-20: Right Edge Bearing Assembly

Left Edge Bearing Assembly

22.9678.1105 Rev C

Refer to Figure 3-21

No.	Item	Qty.	UM.	Description
1	12.9678.1104	1	EA	EDGE BEARING, MACHINE LEFT
2	54.2056.0001	4	EA	RING, RETAINING EXTERNAL 19MM
3	55.6776.0010	2	EA	LINEAR BUSHING, 10MM STEEL W/PHENOLIC CAGE

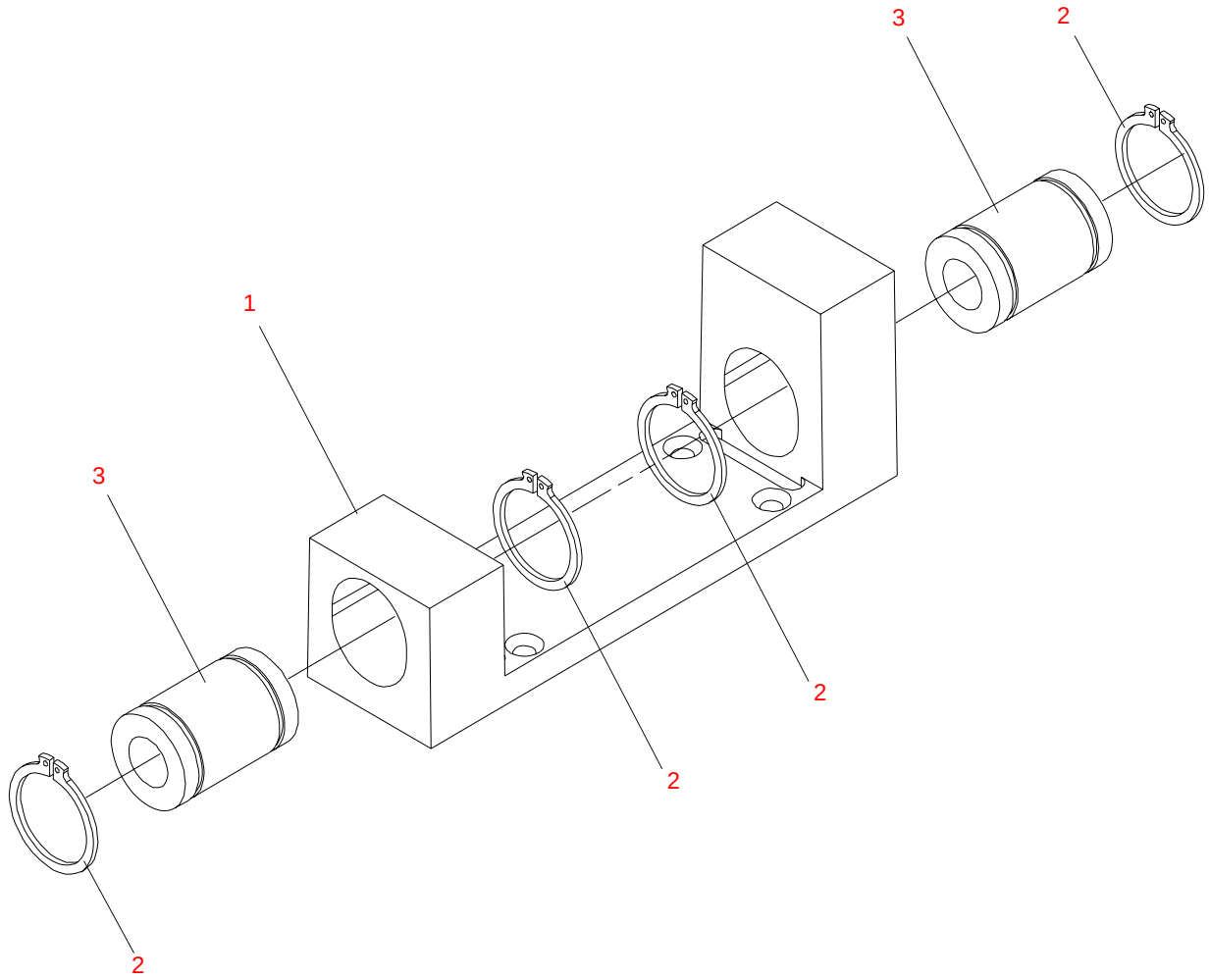


Figure 3-21: Left Edge Bearing Assembly

Zoom Cam Assembly

22.9678.1106 Rev B

Refer to Figure 3-22

No.	Item	Qty.	UM.	Description
1	10.9678.1107	1	EA	ZOOM TIMING CAM
2	10.9678.1108	1	EA	PULLEY FLANGE
3	10.9678.1118	1	EA	TIMING PULLEY, ZOOM
4	53.6613.0008	2	EA	SCREW, 6-32 X 1/2" PPZ (changed 11-08-04)
5	54.1259.0004	2	EA	BEARING, RADIAL FLANGED .25"ID .625"OD (changed 06-25-03)
6	55.6763.0500	2	EA	PIN, DOWEL .5"LG .125"DIA 303SS

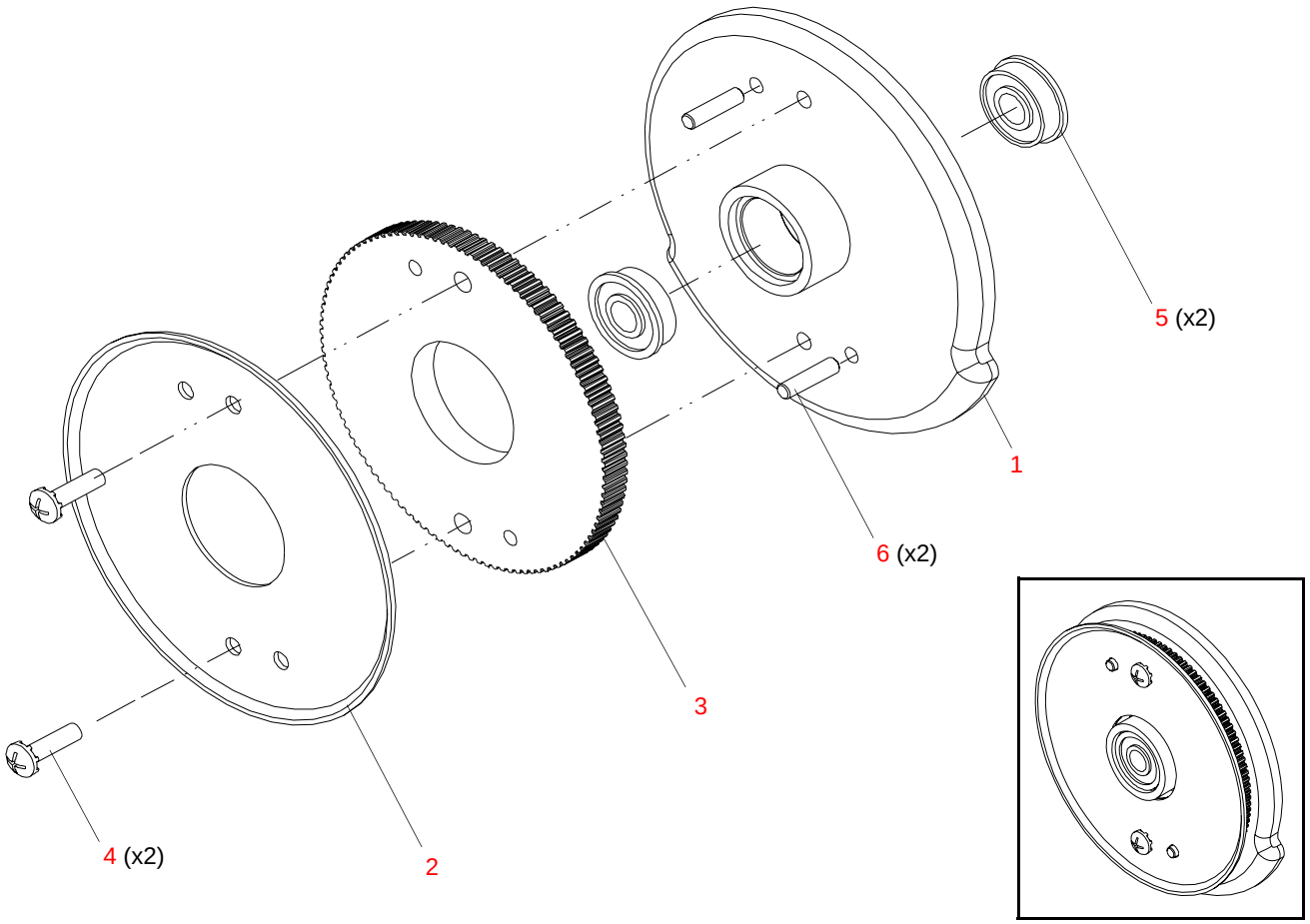


Figure 3-22: Zoom Cam Assembly

Zoom Motor Tensioning Assembly

22.9678.1113 Rev B

Refer to Figure 3-23

No.	Item	Qty.	UM.	Description
1	10.9678.0338	1	EA	PULLEY, ZOOM MOTOR (changed 03-07-06)
2	10.9678.1111	1	EA	BRACKET, ZOOM TENSION SHEETMETAL
3	44.9663.1326	1	EA	MOTOR, 17 .53" SHAFT 11.8MH 5.5 OHM
4	53.5559.0250	2	EA	SCREW, 6-32 X 1/4" SET CONE POINT
5	53.6522.0001	2	EA	SCREW, 6-32 X 1/4" PPZ
6	55.3303.0006	2	EA	WASHER, #6 LOCK INT.TOOTH SS

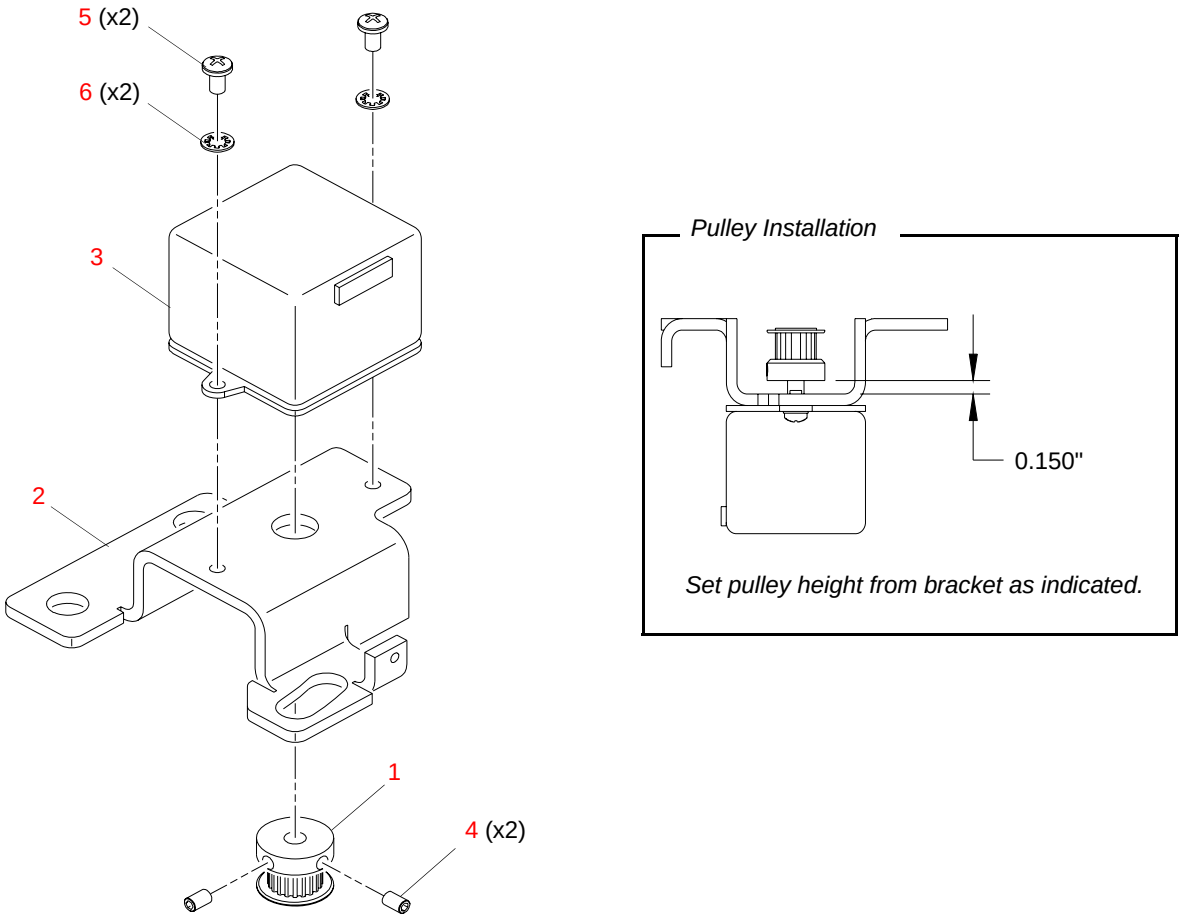


Figure 3-23: Zoom Motor Tensioning Assembly

Interconnect Light Shield Assembly

22.9678.1115 Rev C

Refer to Figure 3-24

No.	Item	Qty.	UM.	Description
1	10.9678.1114	1	EA	SHIELD, INTERCONNECT MOUNT/LIGHT
2	24.9678.3116	1	EA	PCB ASSY, ZOOM INTERCONNECT (changed 03-07-06)
3	53.6558.0009	4	EA	SCREW, 6-32 X 3/8" PPZ SEMS

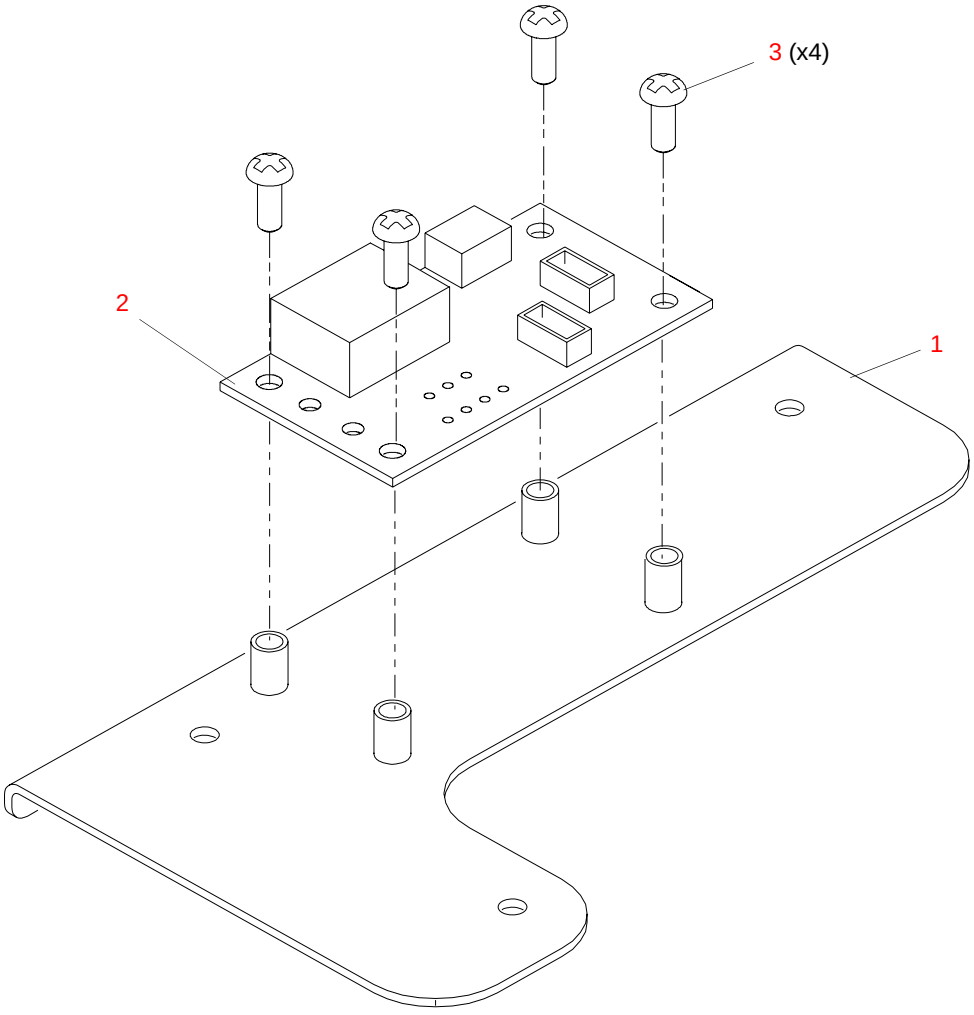


Figure 3-24: Interconnect Light Shield Assembly

Rod Clamp Assembly

22.9678.0149 Rev B

Refer to Figure 3-25

No.	Item	Qty.	UM.	Description
1	10.9678.0151	1	EA	CLAMP, OPTIC ROD CAST
2	53.2008.0006	2	EA	SPRING CLIP, 6-32
3	53.6616.0001	2	EA	SCREW, 6-32 X 3/4" PPZ
4	55.6528.0001	2	EA	WASHER, #6 FLAT ZINC
5	55.6538.0001	2	EA	WASHER, #6 LOCK INTERNAL TOOTH

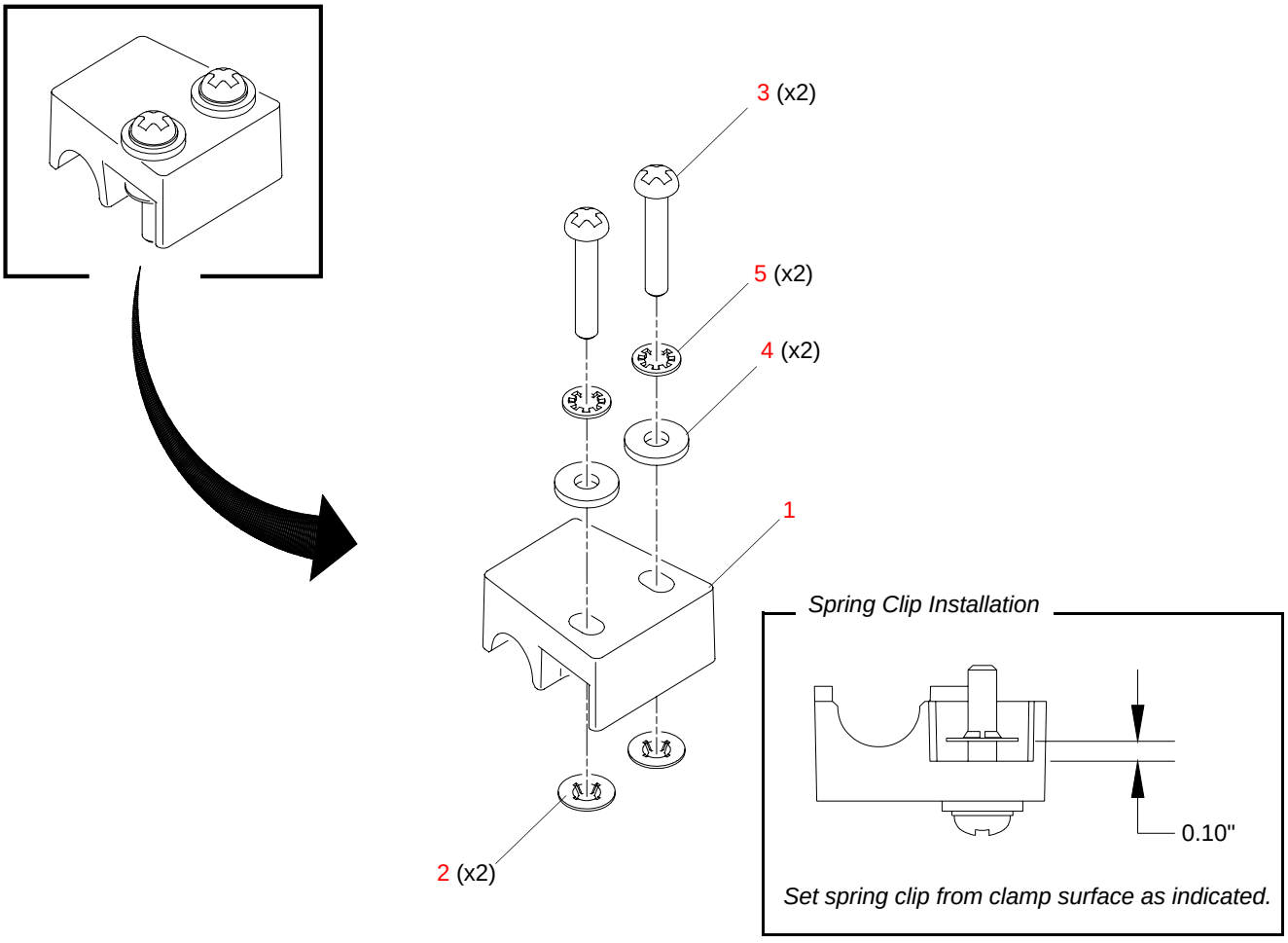


Figure 3-25: Rod Clamp Assembly

Color/Dimmer/Strobe Assembly

22.9678.0402 Rev N (VL3000)
22.9678.0462 Rev E (VL3000Q)

Refer to Figure 3-26

No.	Item	Qty.	UM.	Description
1	10.9678.0324	1	EA	PULLEY, FIXED COLOR WHEEL
2	10.9678.0337	1	EA	DRIVE PULLEY, FIXED COLOR WHEEL (changed 03-09-06)
3	10.9678.0456	4	EA	SHAFT, COLOR WHEEL
4	10.9678.0457.07	1	EA	SPACER, COLOR WHEEL L.357 (changed 07-22-04)
5	10.9678.0457.02	2	EA	SPACER, COLOR WHEEL L.190
6	10.9678.0457.03	3	EA	SPACER, COLOR WHEEL L.123
7	10.9678.0457.04	3	EA	SPACER, COLOR WHEEL L.031
8	10.9678.0469	1	EA	REAR COLOR BULKHEAD
9	10.9678.0485	5	EA	PULLEY, COLOR MOTOR
10	21.9678.0331	1	EA	ASSY MOTOR/PLATE
11	21.9678.0334	1	EA	ASSY, FIXED COLOR WHEEL
12	22.9678.0335	1	EA	ASSY, BEARING BLOCK, FIXED WHEEL
	- 10.9678.0323	1	EA	WHEEL MOUNT
	- 54.1259.0004	2	EA	BEARING, RADIAL FLANGED 0.25"ID 0.625"OD (changed 6-25-03)
13	22.9678.0403	1	EA	ASSY, STROBE
	22.9678.0463	1	EA	ASSY, STROBE (VL3000 QUIET)
14	22.9678.0435	1	EA	ASSY, DIMMER WHEEL
15	22.9678.0472	1	EA	ASSY, CYAN WHEEL
16	22.9678.0474	1	EA	ASSY, YELLOW WHEEL
17	22.9678.0476	1	EA	ASSY, MAGENTA WHEEL
18	22.9678.0478	1	EA	ASSY, CTO WHEEL
19	22.9678.0481	1	EA	MOUNT ASSY, COLOR SENSE PCB #1
20	10.9678.0486	1	EA	FRONT COLOR BULKHEAD
21	22.9678.0489	1	EA	ASSY, COLOR SENSE PCB #2 MOUNT
22	24.9678.3240	1	EA	PCB ASSY, WHEEL POSITION SENSOR (changed 02-14-05)
-	25.9678.1409	1	EA	PCB/CABLE ASSY, COLOR INTERCNT (**not shown**)
-	25.9678.1419	1	EA	PCB/CABLE ASSY, COLOR INTERCNT (**not shown**) (VL3000 QUIET)
23	44.9678.0455	5	EA	COLOR MOTOR
24	53.2202.0008	1	EA	NUT, 8-32 HEX SS, NYLON INSERT
25	53.2200.0006	12	EA	NUT, 6-32 KEPS SS

No.	Item	Qty.	UM.	Description
26	53.5559.0250	12	EA	SCREW, 6-32 X 1/4" SET CONE PO
27	53.5638.0252	12	EA	SCREW, 6-32 X 1/4"LG PFS UNDERCUT HEAD
28	53.6558.0001	7	EA	SCREW, 6-32 X 3/8" PPZ
29	53.6597.0001	2	EA	SCREW, 4-40 X 3/16" PPZ
30	53.6608.0003	5	EA	SCREW, 6-32 X 3/16"LG PPZ
31	54.2036.0017	1	EA	BELT, TIMING N=150 W=.125 URETHANE/KEVLAR
32	54.2059.0001	4	EA	TIMING BELT, MXL PITCH 150 TOOTH SI/KEVLAR
33	54.2060.0001	1	EA	BELT, TIMING MXL PITCH 165 TOOTH SI/KEVLAR
34	55.2132.0011	4	EA	STANDOFF, 1/4"HEX 6-32 X 1.093"L SS
35	55.2132.0012	4	EA	STANDOFF, 1/4"HEX 6-32 X 0.75"LG SS
36	55.3303.0004	2	EA	WASHER, #4 LOCK INT.TOOTH SS
37	55.3303.0006	6	EA	WASHER, #6 LOCK INT.TOOTH SS
38	55.6503.0004	1	EA	WASHER, #8 FLAT ZINC
39	55.6528.0001	2	EA	WASHER, #6 FLAT ZINC
40	55.2110.0002	2	EA	SPACER, 0.010 LG
-	55.2186.0002	5	EA	CABLE TIE, 0.09WD, 0.375 LG, TEFZEL (**not shown**)
41	10.9678.0457.06	1	EA	SPACER, COLOR WHEEL, 0.015 L
42	55.6520.0001	2	EA	WASHER, WAVE SPRING, 1/4" DIA (added 05-17-04) (VL3000 only)

Color/Dimmer/Strobe Assembly (continued)

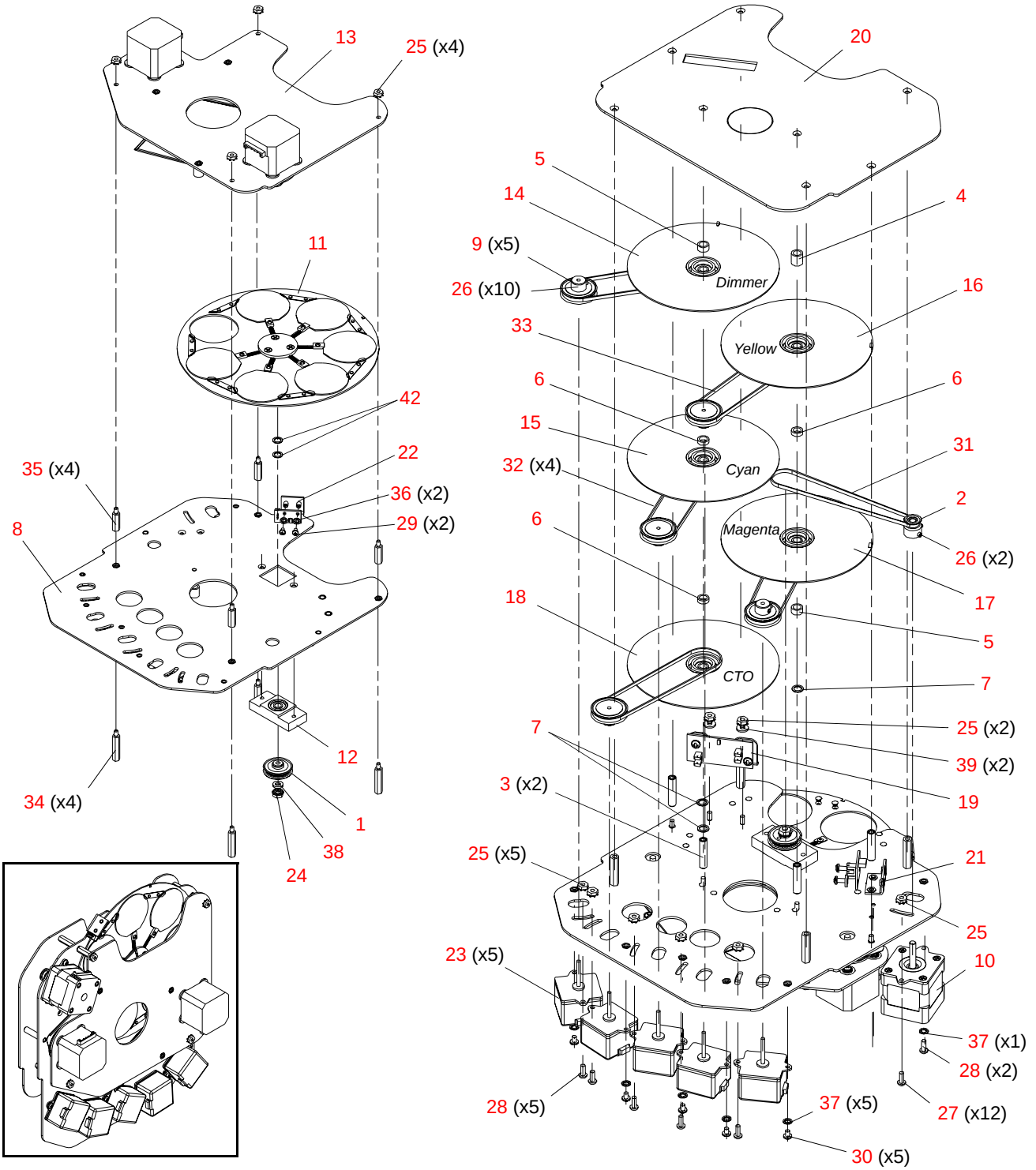


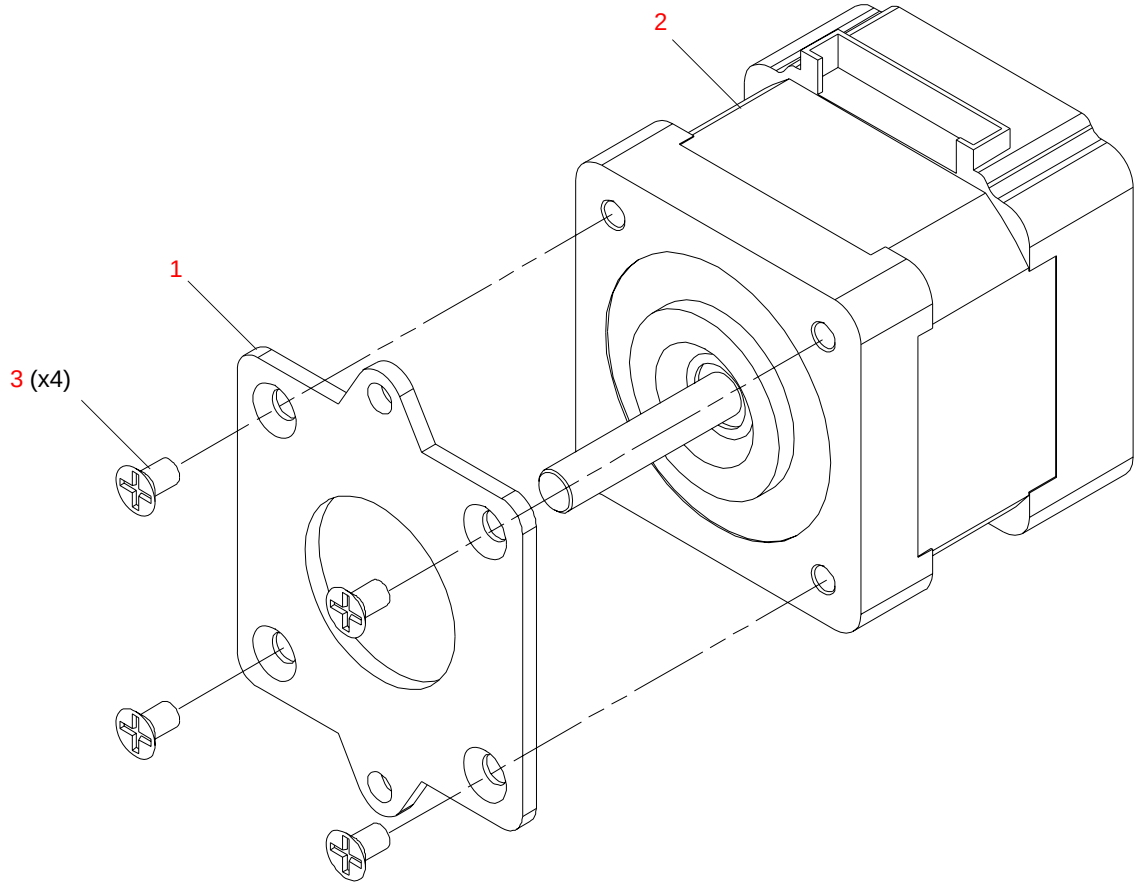
Figure 3-26: Color/Dimmer/Strobe Assembly

Motor/Adapter Plate Assembly

21.9678.0331 Rev 0

Refer to Figure 3-27

No.	Item	Qty.	UM.	Description
1	10.9678.0330	1	EA	PLATE, MOTOR ADAPTER
2	44.5031.0001	1	EA	MOTOR, STEPPER 42MM X 40MM,10
3	53.6513.0002	4	EA	SCREW, 3MM X 5MM LG PFZ METR



Note orientation of adapter plate in relation to the motor.

Figure 3-27: Motor/Adapter Plate Assembly

Fixed Color Wheel Assembly

21.9678.0334 Rev D

Refer to Figure 3-28

No.	Item	Qty.	UM.	Description
1	10.9678.0322	1	EA	SPIN SHAFT, COLOR WHEEL
2	10.9678.0332	6	EA	SLIDING RETAINER
3	10.9678.0333	6	EA	RETAINER CLIP
4	22.9678.1336	1	EA	FAB ASSY, FIXED WHEEL/CLIP (changed 9-03-03)
5	41.9678.0305.01	1	EA	COLOR FILTER, DEEP RED VL3000
6	41.9678.0305.02	1	EA	COLOR FILTER, KELLY GREEN VL3000
7	41.9678.0305.03	1	EA	COLOR FILTER, CONGO BLUE VL3000
8	41.9678.0305.04	1	EA	COLOR FILTER, MAGENTA VL3000
9	41.9678.0305.05	1	EA	COLOR FILTER, ORANGE VL3000
10	41.9678.0305.06	1	EA	COLOR FILTER, DARK FUSHIA VL3000
11	53.6534.0001	6	EA	RIVET, 3/32"OD POP 3/32 GRIP RANGE
12	53.6608.1857	3	EA	SCREW, 6-32 X 3/16"LG PFSS
13	55.2256.0001	1	EA	MAGNET, 2:17 SMCO 2MM X 2MM X 3MM
14	55.6568.0076	6	EA	SPRING, CPRSN 0.120"OD 0.750"LG
15	10.9678.0250	1	EA	MAGNET TAPE

Fixed Color Wheel Assembly (continued)

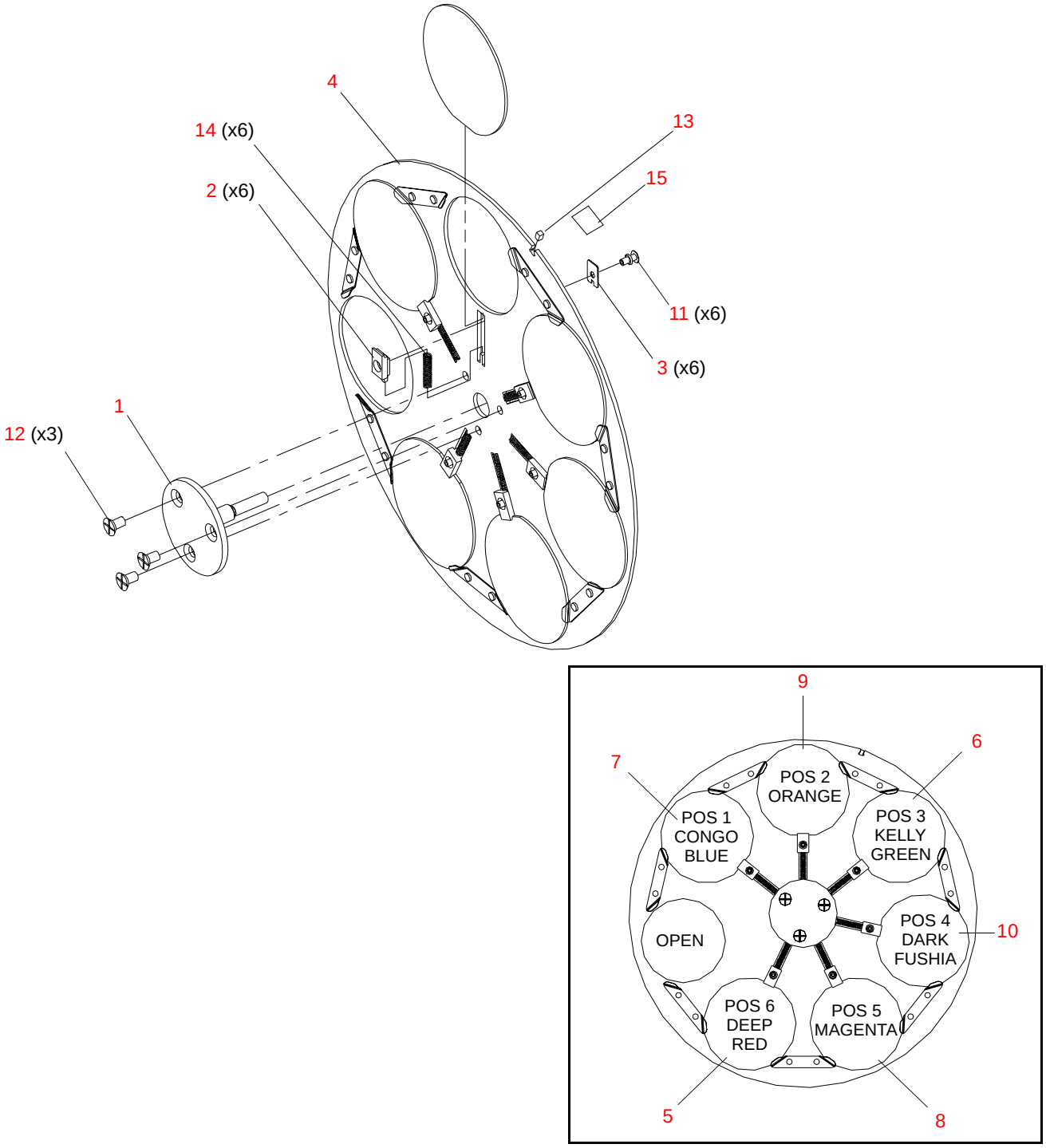


Figure 3-28: Fixed Color Wheel Assembly

Strobe Assembly

22.9678.0403 Rev F

Refer to Figure 3-29

No.	Item	Qty.	UM.	Description
1	10.9678.0491	4	EA	BUMPER STOP, STROBE (changed on 6-18-03)
2	10.9678.0465	1	EA	STROBE BULKHEAD
3	22.9678.0468	1	EA	ASSY, LEFT STROBE BLADE
4	22.9678.0467	1	EA	ASSY, RIGHT STROBE BLADE
5	44.5029.0001	2	EA	MOTOR, STEPPER 42MM X 34MM -AR
6	53.6513.0032	8	EA	SCREW, M3X10MM SEMS PPZ EXT TO
7	53.6609.0500	4	EA	SCREW, 6-32 X 1/2" LG PFZ
8	55.6659.0001	8	EA	SPACER, 1/4" RND 4 THRU 3/16" AL (changed 03-01-04)
9	55.3306.0006	8	EA	WASHER, 0.375 OD 0.149 ID 0.025 THK SS (changed 08-12-03)
10	55.6706.0001	8	EA	GROMMET, 9/32" ID 9/16" OD 1/4T SILICON RED (changed 03-01-04)

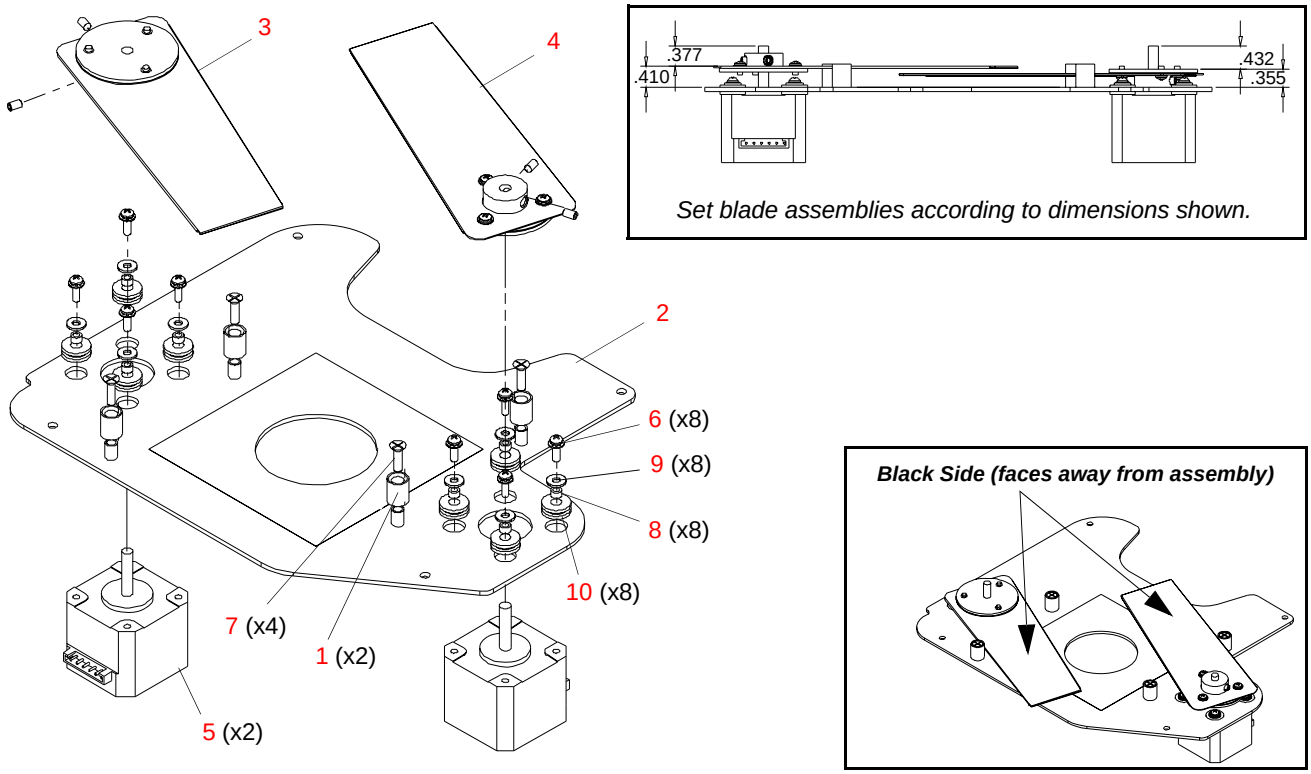


Figure 3-29: Strobe Assembly

Strobe Assembly (VL3000 Quiet)

22.9678.0463 Rev B

Refer to Figure 3-29

No.	Item	Qty.	UM.	Description
1	10.9678.0491	4	EA	BUMPER STOP, STROBE
2	10.9678.0465	1	EA	STROBE BULKHEAD
3	22.9678.0467	1	EA	ASSEMBLY, RIGHT STROBE BLADE
4	22.9678.0468	1	EA	ASSEMBLY, LEFT STROBE BLADE
5	23.9678.0499	2	EA	ASSEMBLY, STROBE MOTOR, VL3000Q
6	53.6520.0001	8	EA	SCREW, #4-40 X 3/8 PPZ
7	53.6609.0500	4	EA	SCREW, 6-32 X 1/2"LG PFZ
8	55.3306.0006	8	EA	WASHER,.375 OD.149 ID.025 THK SS
9	55.6537.0001	8	EA	WASHER, #4 INTERNAL LOCK TOOTH
10	55.6659.0001	8	EA	SPACER, 1/4" RND 4 THRU 3/16" AL
11	55.6706.0001	8	EA	GROMMET, 9/32" ID, 9/16" OD, 1/4" TH SILICONE

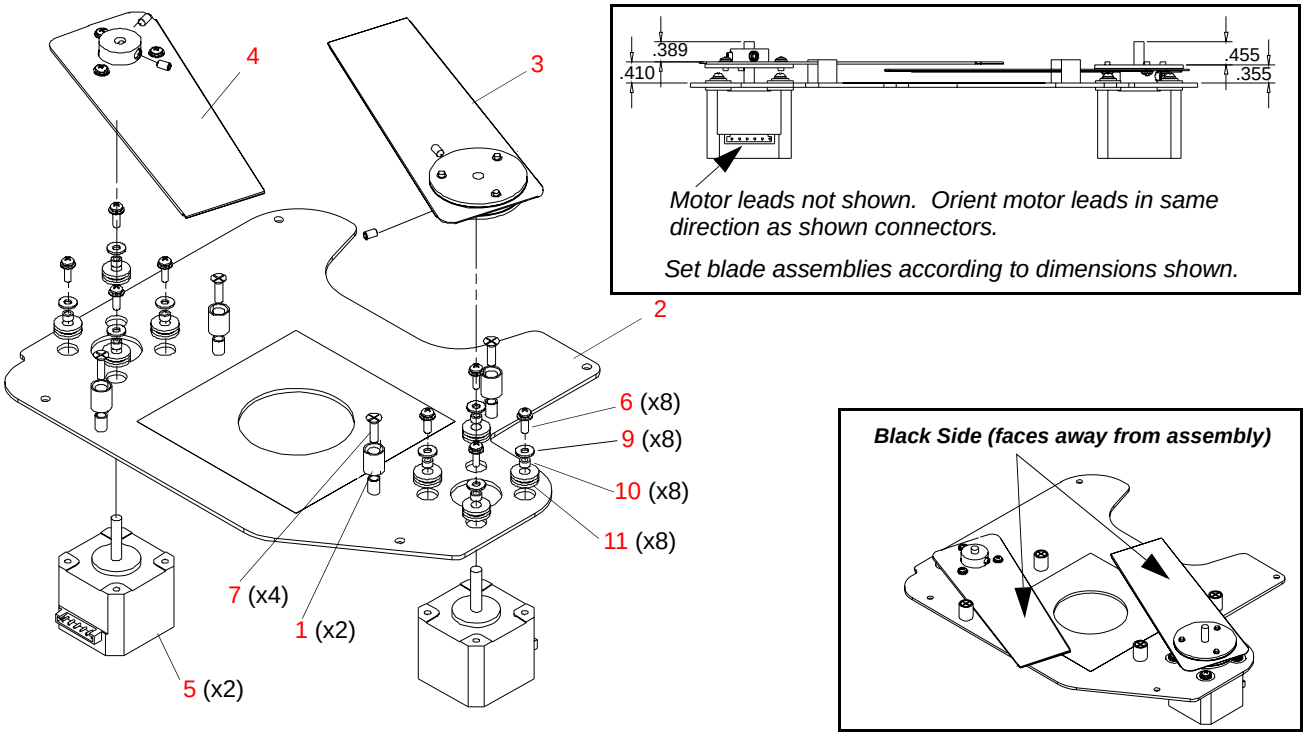


Figure 3-30: Strobe Assembly

Right Strobe Blade Assembly

22.9678.0467 Rev C

Refer to Figure 3-31

No.	Item	Qty.	UM.	Description
1	10.9678.0464	1	EA	STROBE BLADE (changed 07-29-04)
2	10.9678.0432	1	EA	HUB, STROBE BLADE
3	10.9678.0466	1	EA	STROBE BLADE, DAMPER
4	53.5559.0250	2	EA	SCREW, 6-32 X 1/4" SET CONE POINT
5	53.6597.0001	3	EA	SCREW, 4-40 X 3/16" PPZ
6	55.3303.0004	3	EA	WASHER, #4 LOCK INT. TOOTH SS

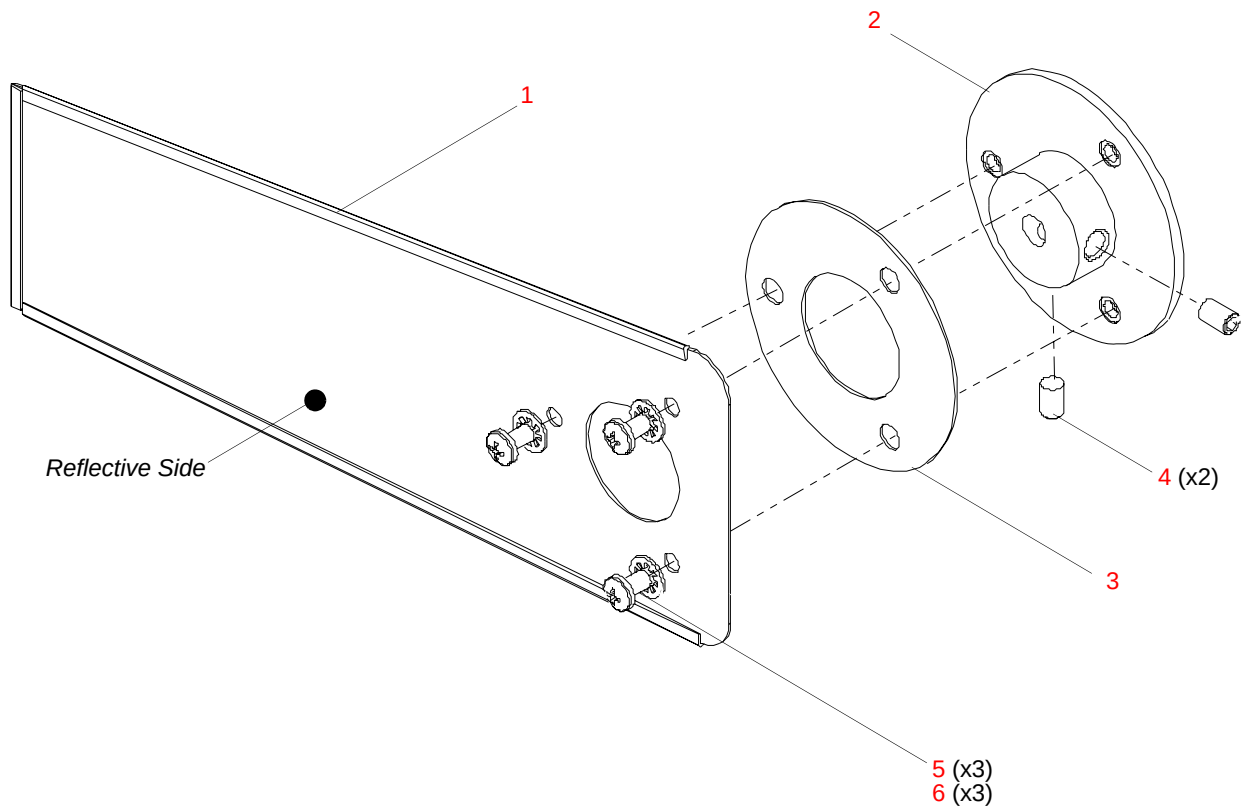


Figure 3-31: Right Strobe Blade Assembly

Left Strobe Blade Assembly

22.9678.0468 Rev C

Refer to Figure 3-32

No.	Item	Qty.	UM.	Description
1	10.9678.0464	1	EA	STROBE BLADE (changed 07-29-04)
2	10.9678.0432	1	EA	HUB, STROBE BLADE
3	10.9678.0466	1	EA	STROBE BLADE, DAMPER
4	53.5559.0250	2	EA	SCREW, 6-32 X 1/4" SET CONE POINT
5	53.6597.0001	3	EA	SCREW, 4-40 X 3/16" PPZ
6	55.3303.0004	3	EA	WASHER, #4 LOCK INT. TOOTH SS

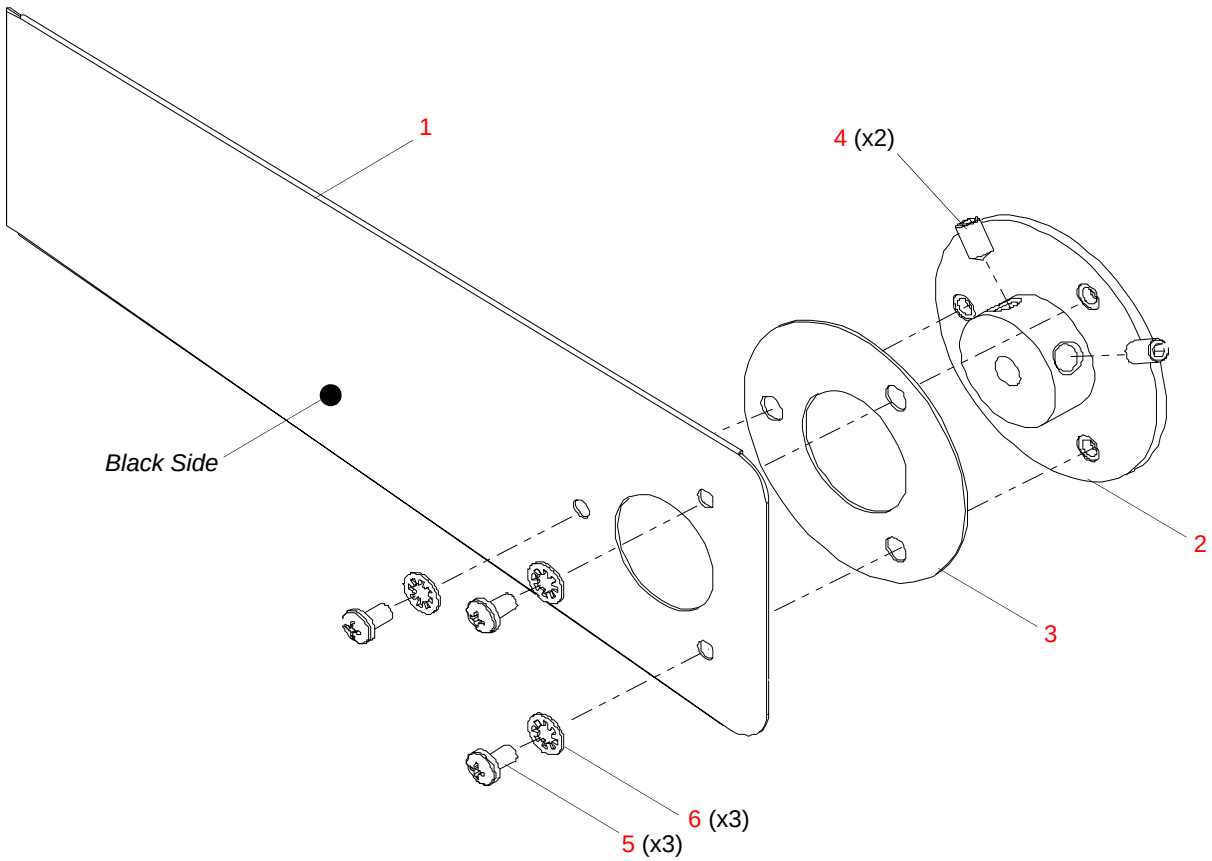


Figure 3-32: Left Strobe Blade Assembly

VL3000Q Strobe Motor Assembly

23.9678.0499 Rev A (VL3000Q)

Refer to Figure 3-33

No.	Item	Qty.	UM.	Description
1	44.5035.0001	1	EA	STEPPER MOTOR, 2 PHASE, PK
2	52.6524.0004	1	EA	CONNECTOR, HOUSING, 4 POS RECEPT
3	52.8346.0001	4	EA	CONTACT, 24-30 AWG FEMALE CRIMP
4	55.2200.0003	0.25	FT	HEAT SHRINK, 3/16" VITON

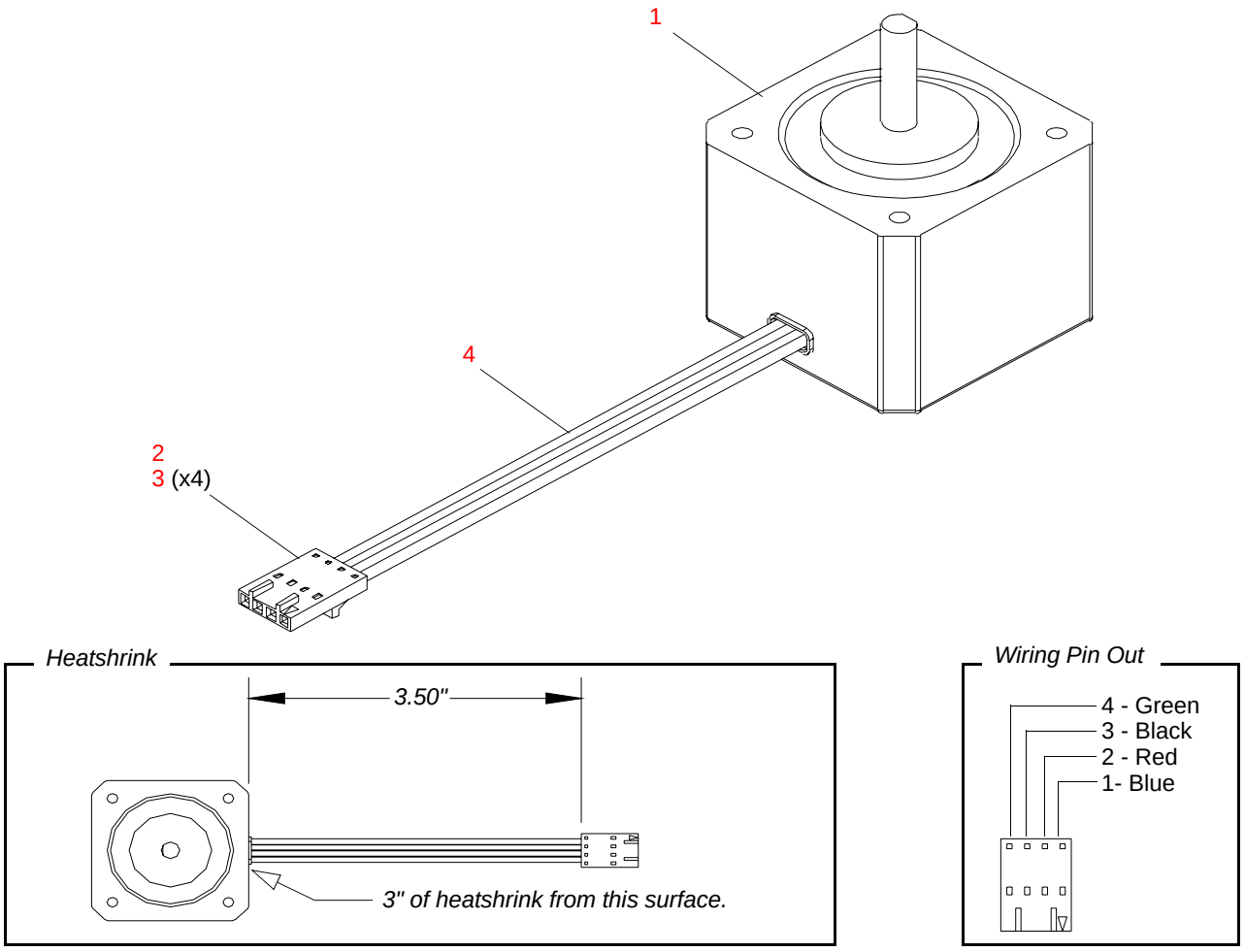


Figure 3-33: VL3000Q Strobe Motor Assembly

Dimmer Wheel Assembly

22.9678.0435 Rev D

Refer to Figure 3-34

No.	Item	Qty.	UM.	Description
5	55.2256.0001	1	EA	MAGNET, 2:17 SMCO 2MM X 2MM

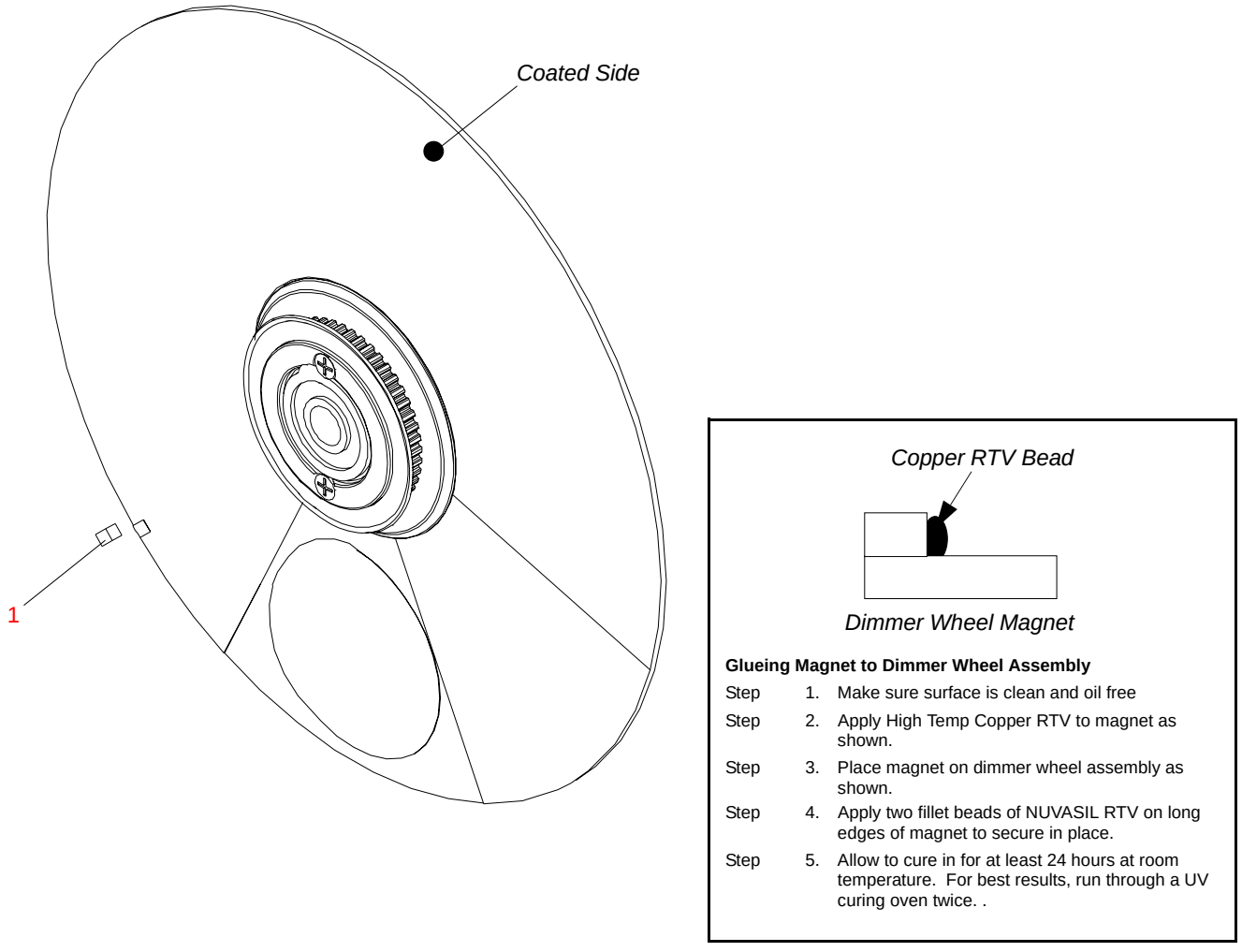

Coated Side
1
Copper RTV Bead
Dimmer Wheel Magnet
Glueing Magnet to Dimmer Wheel Assembly
Step 1. Make sure surface is clean and oil free
Step 2. Apply High Temp Copper RTV to magnet as shown.
Step 3. Place magnet on dimmer wheel assembly as shown.
Step 4. Apply two fillet beads of NUVASIL RTV on long edges of magnet to secure in place.
Step 5. Allow to cure in for at least 24 hours at room temperature. For best results, run through a UV curing oven twice. .

Figure 3-34: Dimmer Wheel Assembly

Gobo Clamp Assembly

22.9678.0693 Rev A

Refer to Figure 3-35

No.	Item	Qty.	UM.	Description
1	12.9678.0691	1	EA	GOBO CLAMP
2	53.6685.0625	2	EA	SCREW, CAPTIVE PANEL, 6-32 X 0.625"LG PPS ZINC PLATED
3	55.6538.0001	2	EA	WASHER, #6 LOCK INTERNAL TOOTH
4	53.6613.1126	1	EA	SCREW, 6-32 X 1.125 LG PPZ

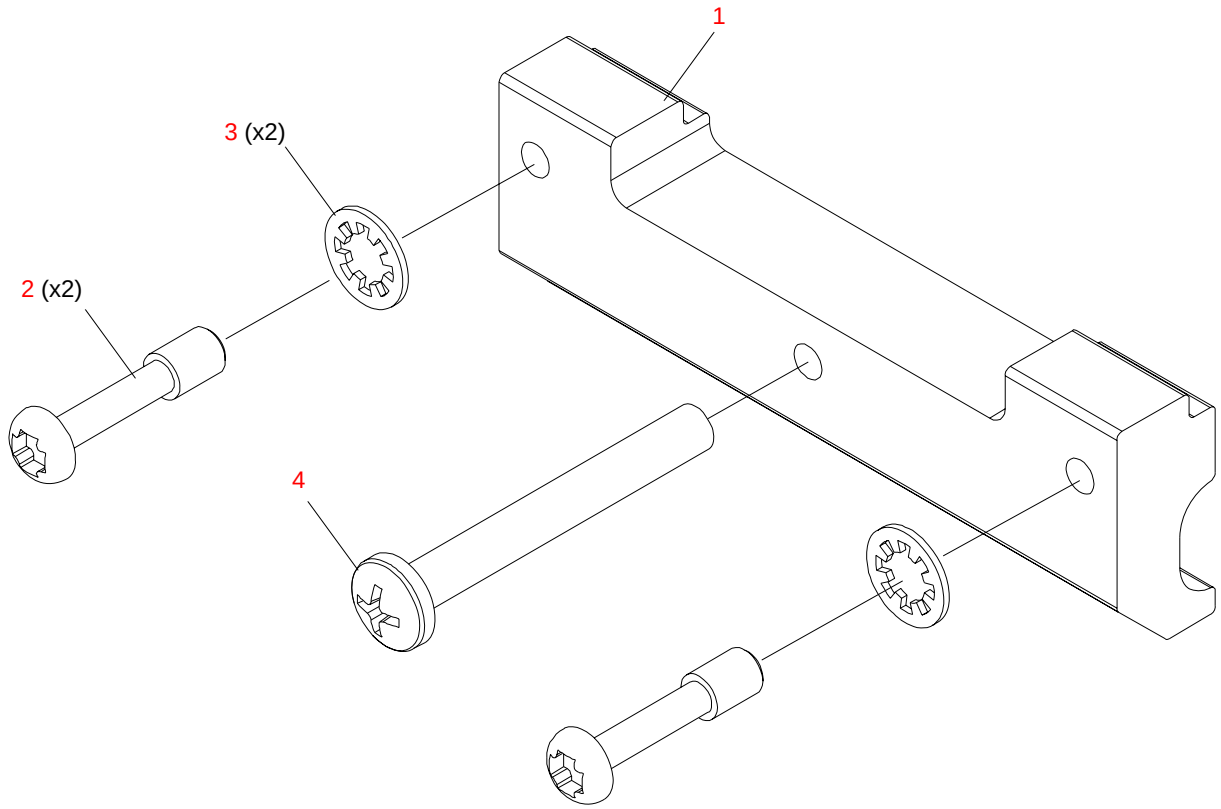


Figure 3-35: Gobo Clamp Assembly

Color Clamp Assembly

22.9678.0694 Rev A

Refer to Figure 3-36

No.	Item	Qty.	UM.	Description
1	12.9678.0692	1	EA	COLOR CLAMP
2	53.6685.0625	2	EA	SCREW, CAPTIVE PANEL, 6-32 X.625"LG PPS ZINC PLATED
3	55.6538.0001	2	EA	WASHER, #6 LOCK INTERNAL TOOTH
4	53.6613.1126	1	EA	SCREW, 6-32 X 1.125 LG PPZ

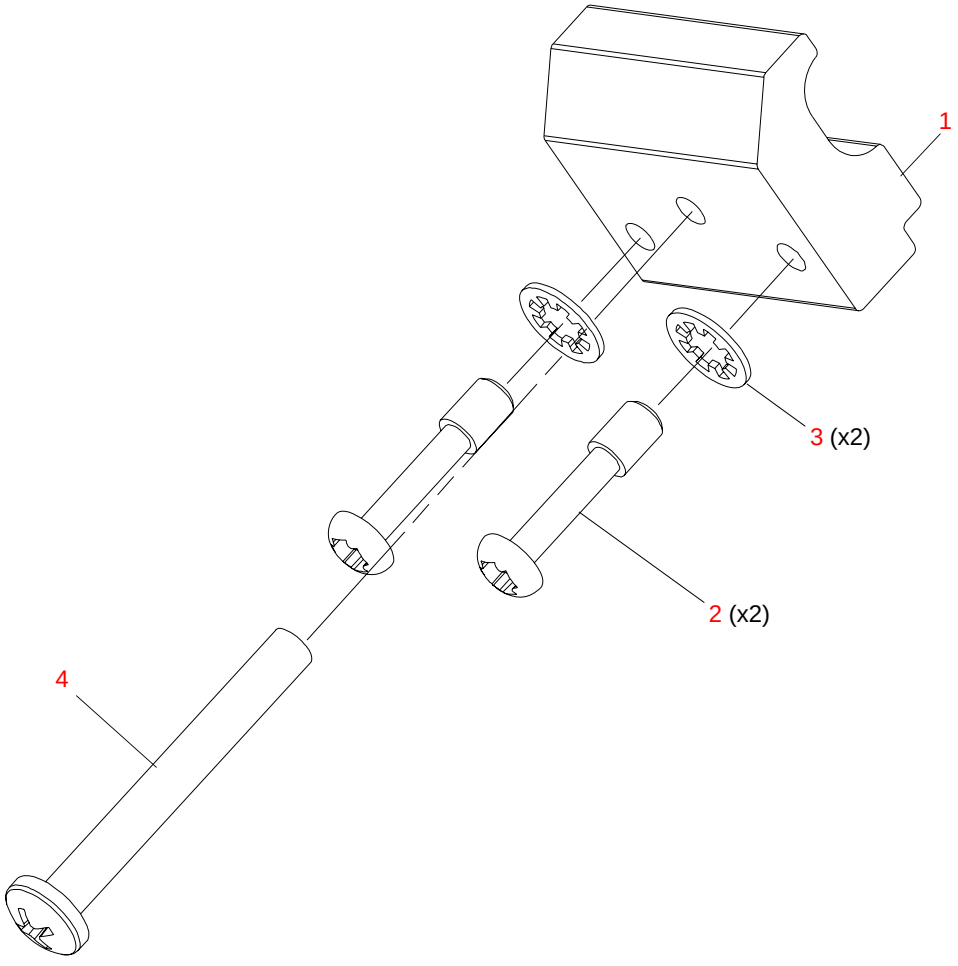


Figure 3-36: Color Clamp Assembly

Edge Lead Screw Assembly

22.9678.1126 Rev B

Refer to Figure 3-37

No.	Item	Qty.	UM.	Description
1	10.9678.1119	1	EA	LEAD SCREW, EDGE
2	55.6616.0007	1	EA	STANDOFF, 3/8" HEX THRD 0.562" LG

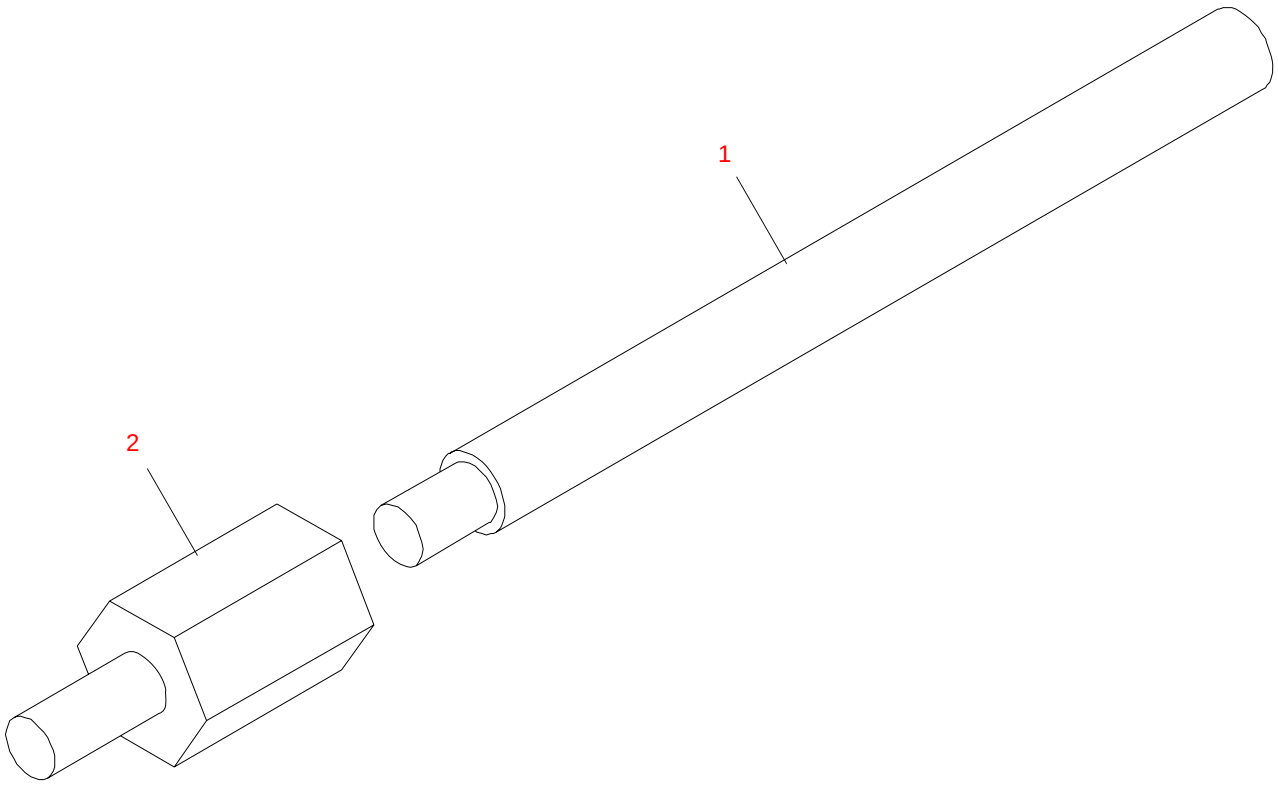


Figure 3-37: Edge Lead Screw Assembly

Beam Spreader Assembly

21.9678.0910 Rev A (Wash Only)

Refer to Figure 3-38

No.	Item	Qty.	UM.	Description
1	10.9678.0945	1	EA	TUBE, WASH LIGHT BAFFLE
2	21.9678.0920	1	EA	ASSY, CONCAVE LENS STATIONARY
3	21.9678.0930	1	EA	ASSY, CONVEX LENS TRANSLATING
4	21.9678.0940	1	EA	ASSY, CONDENSER LENS
5	24.9678.3916	1	EA	PCB ASSY, ZOOM INTERCONNECT WASH
6	53.6520.0375	4	EA	SCREW, 4-40 X 3/8" PPZ SEMS
7	53.6682.0022	2	EA	SCREW, 8-32 X 3/8" PPZ
8	53.6558.0009	4	EA	SCREW, 6-32 X 3/8" PPZ

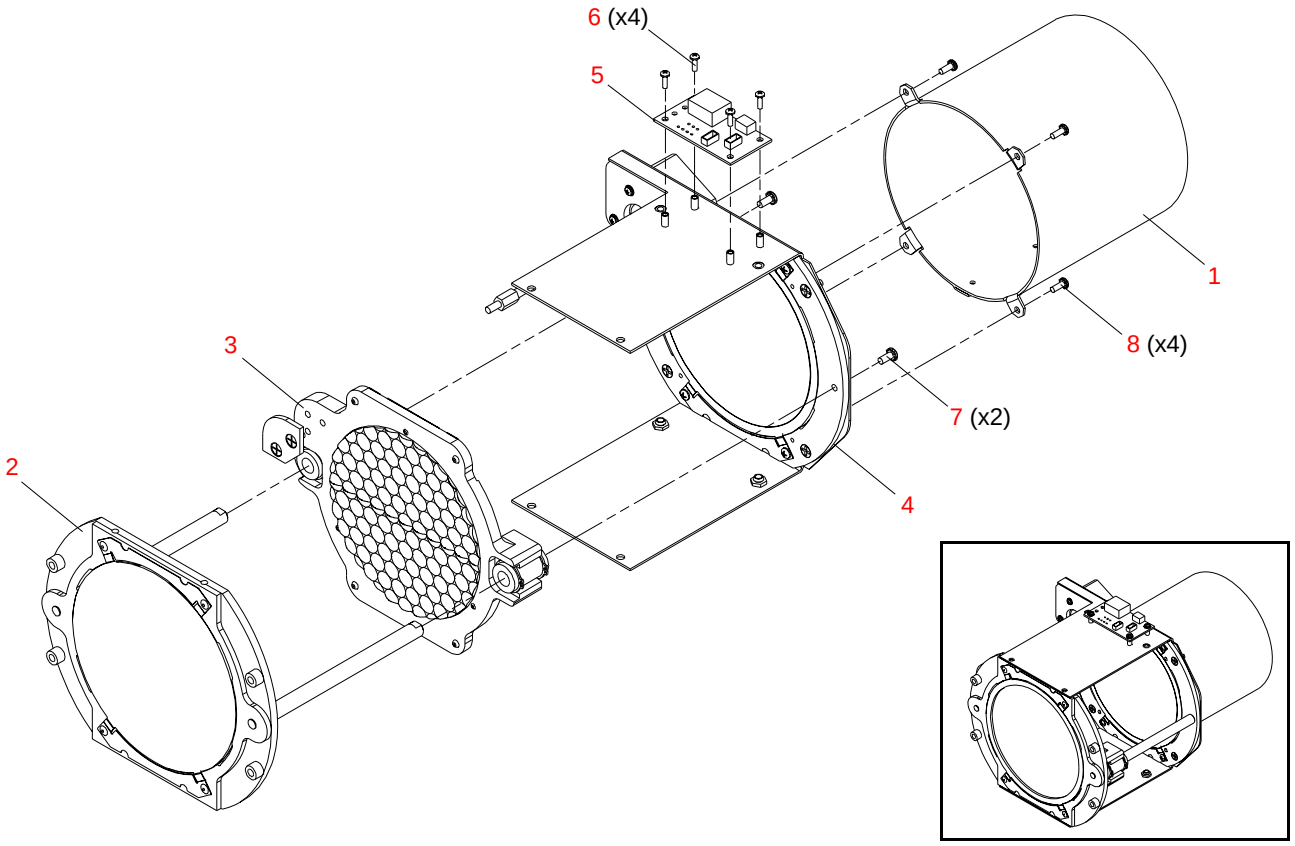


Figure 3-38: Beam Spreader Assembly

Stationary Concave Lens Assembly

21.9678.0920 Rev A (Wash Only)

Refer to Figure 3-39

No.	Item	Qty.	UM.	Description
1	10.9678.0927	2	EA	BEARING SHAFT, BEAM SPREADER
2	10.9678.0928	2	EA	LENS CLAMP, BEAM SPREADER
3	12.9678.0168	1	EA	MASKED, CONCAVE LENS ARRAY MEDIUM
4	12.9678.0925	1	EA	CONCAVE LENS MOUNT, MACHINED
5	42.9678.1169	1	EA	DIFFUSION LENS, FRONT, WASH
6	53.6530.0002	4	EA	RIVET, 1/8"OD POP.063-.125 GR.LENGTH

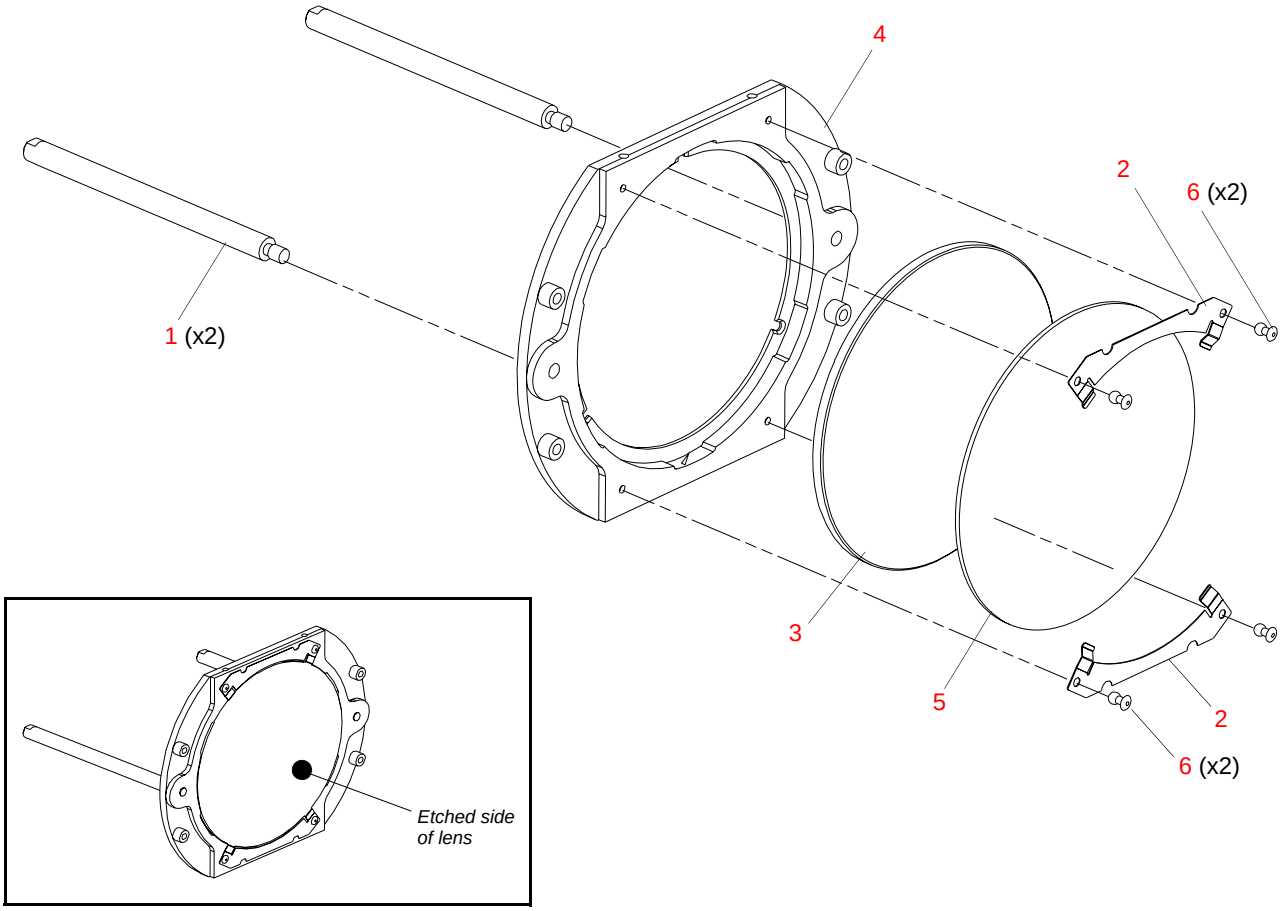


Figure 3-39: Stationary Concave Lens Assembly

Translating Convex Lens Assembly

21.9678.0930 Rev B (Wash Only)

Refer to Figure 3-40

No.	Item	Qty.	UM.	Description
1	10.9678.0936	1	EA	STOP, BEAM SPREADER
2	10.9678.0938	2	EA	LENS CLAMP, CONVEX
3	12.9678.0166	1	EA	MASKED, CONVEX LENS ARRAY MEDIUM
4	12.9678.0939	1	EA	CONVEX LENS MOUNT, MACHINED, ADJUSTABLE
5	53.6515.0375	4	EA	SCREW, 10-32 X 3/8" LG SCB
6	53.6545.0003	2	EA	SCREW, 8-32 X 3/8" PFZ
7	54.2056.0001	4	EA	RING, RETAINING EXTERNAL, 19MM SHAFT
8	55.2114.0001	4	EA	WASHER, LOCK, #10 INTERNAL TOOTH
9	55.6776.0010	2	EA	LINEAR BUSHING, 10MM STEEL W/ PHENOLIC CAGE

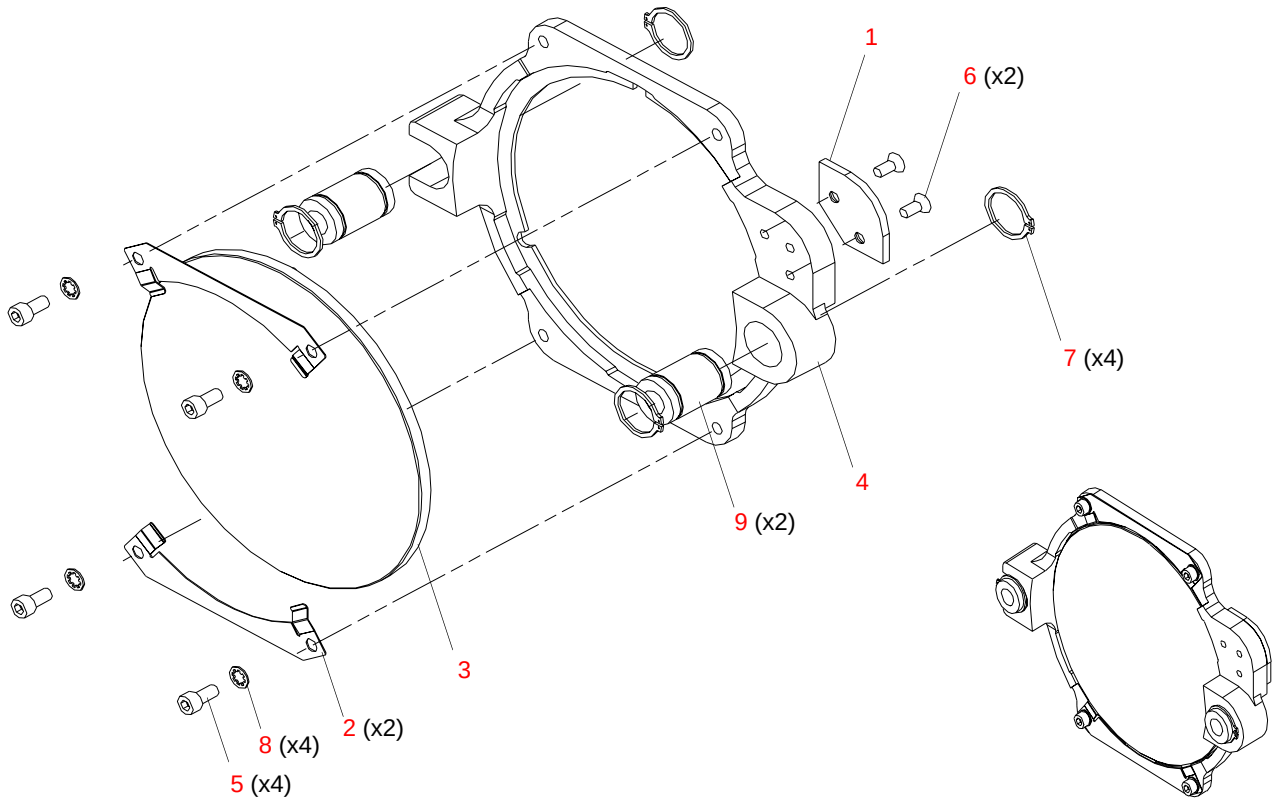


Figure 3-40: Translating Convex Lens Assembly

Condenser Lens Assembly

21.9678.0940 Rev C (Wash Only)

Refer to Figure 3-41

No.	Item	Qty.	UM.	Description
1	10.9678.0928	2	EA	LENS CLAMP, BEAM SPREADER
2	10.9678.0941	1	EA	HOUSING, BEAM SPREADER
3	10.9678.0942	1	EA	LEAD SCREW, BEAM SPREADER
4	10.9678.0944	1	EA	CONDENSER LENS MOUNT
5	23.9678.1120	1	EA	LINEAR ACTUATOR ASSEMBLY
6	42.9678.0174	1	EA	127MM CONDENSER LENS
7	53.6552.0001	4	EA	SCREW, 8-32 X 1/2" PFZ
8	53.6596.0002	4	EA	SCREW, 4-40 X 5/16" PPZ SEMS (changed 3-03-04)
9	53.6613.0008	4	EA	SCREW, 6-32 X 1/2" PPZ SEMS (changed 3-03-04)
10	55.6616.0007	1	EA	STANDOFF, 3/8" HEX 8-32 0.562" LG MF SS (changed 8-04-03)

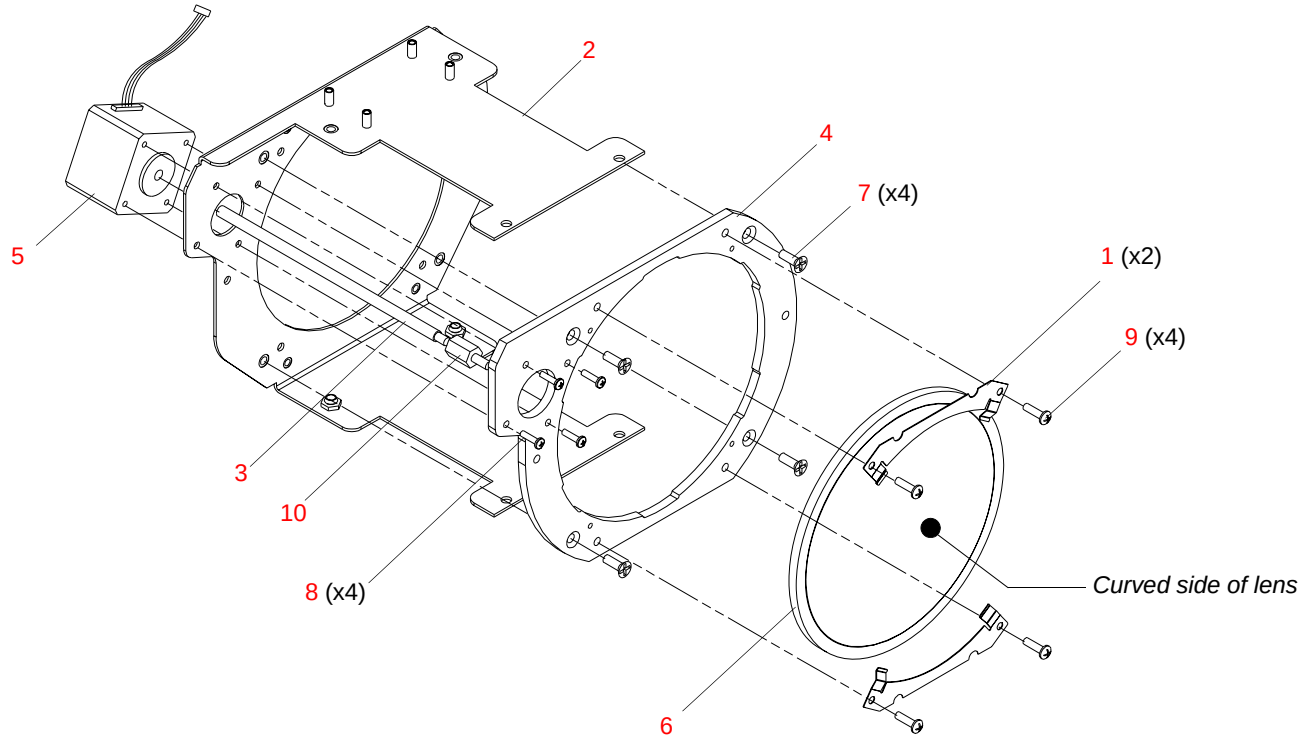


Figure 3-41: Condenser Lens Assembly

Aperture Bulkhead Assembly

21.9678.0950 Rev B (Wash Only)

Refer to Figure 3-42

No.	Item	Qty.	UM.	Description
1	10.9678.0225	2	EA	SHAFT, GOBO WHEEL
2	10.9678.0952	1	EA	WASH BULKHEAD
3	10.9678.0953	1	EA	WASH APERTURE PLATE
4	53.6609.0001	4	EA	SCREW, 6-32 X 3/8" PFZ (changed 11-11-03)
5	53.6613.0001	4	EA	SCREW, 6-32 X 1/2" PPZ
6	55.2150.0002	2	EA	STANDOFF, 1/4"HEX 6-32 1.187"L
7	55.6769.0004	3	EA	TWIST-LOK, 0.55"ID NOM WHITE 85 DEG C MAX FLAME RET NYL
8	53.5638.0252	2	EA	SCREW, 6-32 X 1/4" PFZ UNDERCUT HD

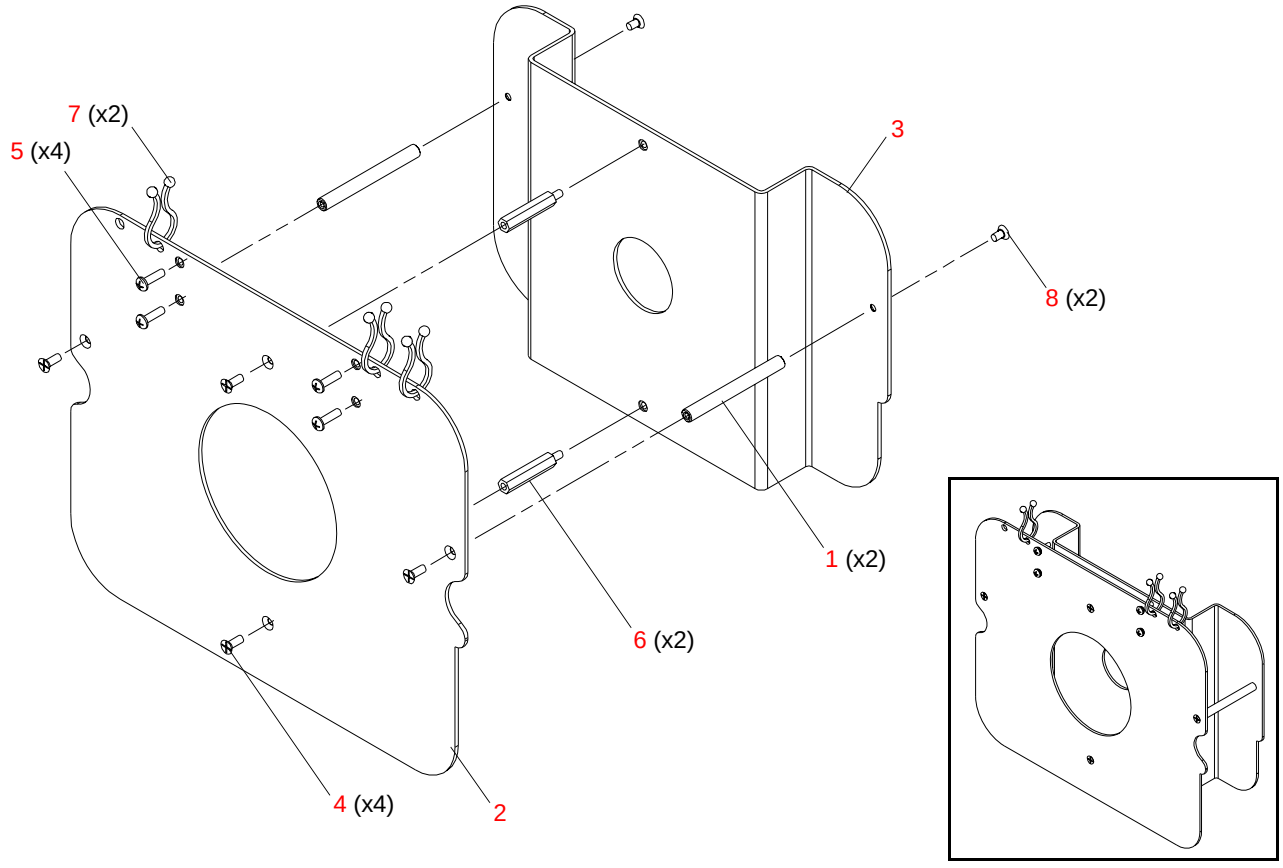


Figure 3-42: Aperature Bulkhead Assembly

Beam Spreader Light Baffle Assembly

21.9678.0991 Rev A (Wash Only)

Refer to Figure 3-43

No.	Item	Qty.	UM.	Description
1	10.9678.0658	8	EA	PLATE, COUNTERWEIGHT
2	10.9678.0990	1	EA	LIGHT BAFFLE, BEAM SPREADER
3	53.6616.0001	4	EA	SCREW, 6-32 X 3/4" PPZ

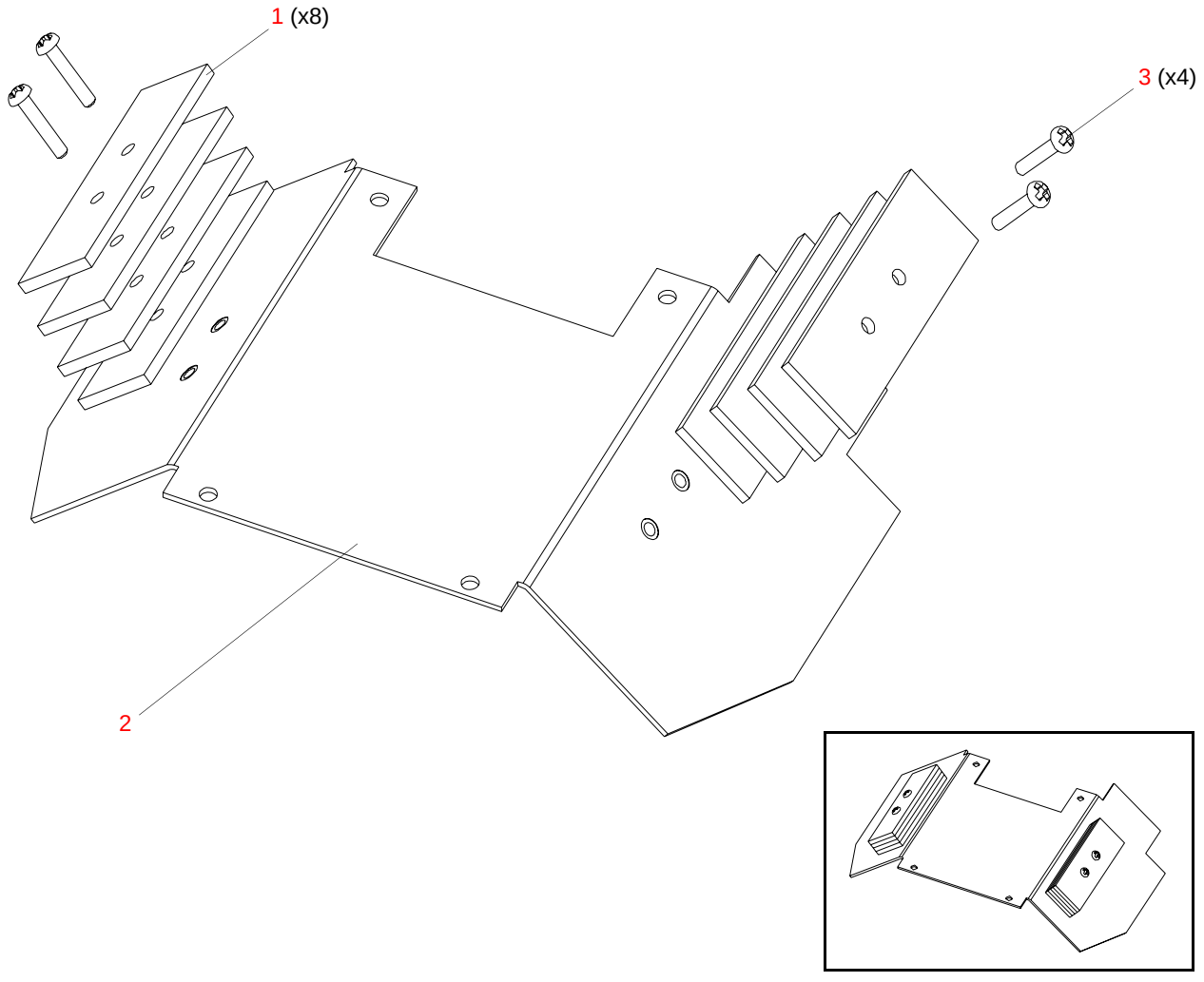


Figure 3-43: Beam Spreader Light Baffle Assembly

Yoke Assembly

Yoke Assembly

21.9678.0700 Rev J (VL3000)
21.9678.0701 Rev B (VL3000Q)

Refer to Figure 3-44

No.	Item	Qty.	UM.	Description
1	10.9678.0764	1	EA	PLATE, TILT ENCODER MOUNT
2	10.9678.0756	1	EA	IGNITOR SHIELD
3	21.9678.0765	1	EA	ASSY, TILT MOTOR
4	22.9661.0609	2	EA	ASSY, YOKE FAN
	22.9678.0609	2	EA	ASSY, YOKE FAN, VL3000 QUIET
5	22.9686.0705	1	EA	ASSY, YOKE STRUCTURE
6	23.9650.3327	1	EA	ELEC ASSY, RELAY
7	23.9661.1253	1	EA	ELEC ASSY, TILT EOT SENSOR
8	24.9661.3126	1	EA	PCB ASSY, SOLID STATE IGNITOR
-	25.9661.1526	2	EA	CABLE ASSY, IGNITOR TO RELAY **(NOT SHOWN)**
-	25.9678.0681	1	EA	CABLE ASSY, YOKE FAN AND RELAY **(NOT SHOWN)**
-	25.9678.0781	1	EA	CABLE ASSY, YOKE FAN AND RELAY, VL3000 QUIET **(NOT SHOWN)**
-	25.9678.0758	1	EA	CABLE ASSY, YOKE FAN **(NOT SHOWN)**
-	25.9678.0759	1	EA	CABLE ASSY, YOKE FAN, VL3000 QUIET **(NOT SHOWN)**
9	53.2019.0004	2	EA	NUT, 3/8-16 X 7/32" THK HEX
10	53.2200.0006	1	EA	NUT, 6-32 KEPS SS
11	53.5634.0250	8	EA	SCREW, 4-40 X 1/4" PFSS BL
12	53.6539.0001	2	EA	WASHER, 3/8" SPLIT LOCK
13	53.6558.0009	12	EA	SCREW, 6-32 X 3/8"LG PPZ SEM
14	53.6626.0001	6	EA	SCREW, 10-32 X 1/2" PPZ
15	53.6634.0003	2	EA	SCREW, 3/8-16 X 1/2"LG SOC
16	55.2150.0002	1	EA	STANDOFF, 1/4" HEX 6-32 1.187"L
17	55.2178.0001	1	EA	CABLE ANCHOR MOUNT, #8 SCREW MOUNT
18	55.6528.0001	2	EA	WASHER, #6 FLAT ZINC
19	55.6541.0002	2	EA	GROMMET, 1 "ID 1 3/4"OD 1 3/8 GROOVE DIA
20	55.6568.0074	2	EA	SPRING, CPRSN .420"OD .750"LG
21	55.6658.0004	2	EA	STANDOFF, 1/4" HEX 6-32 .750"LG, F-F, AL (changed 05-27-03)

Yoke Assembly (continued)

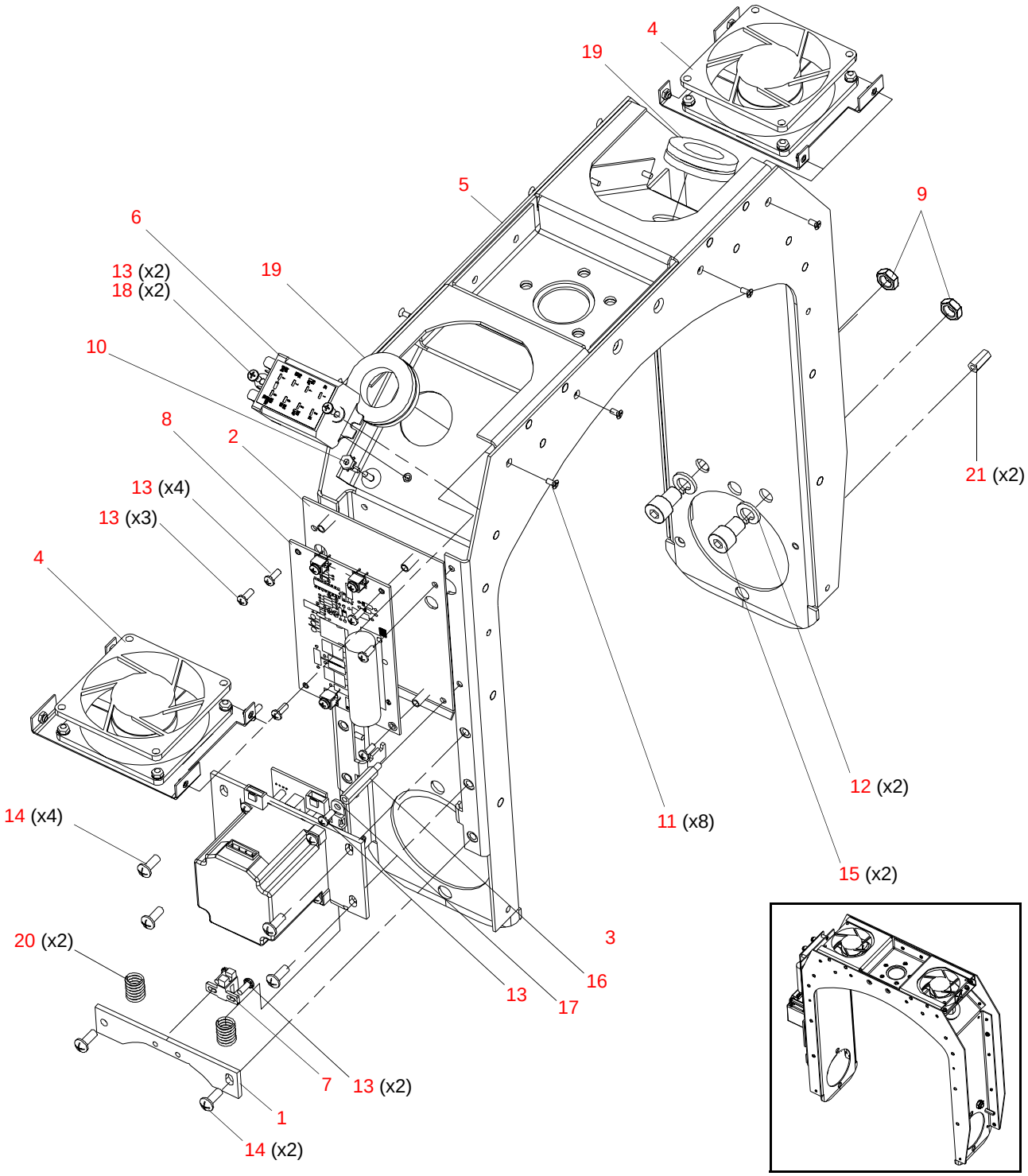


Figure 3-44: Yoke Assembly

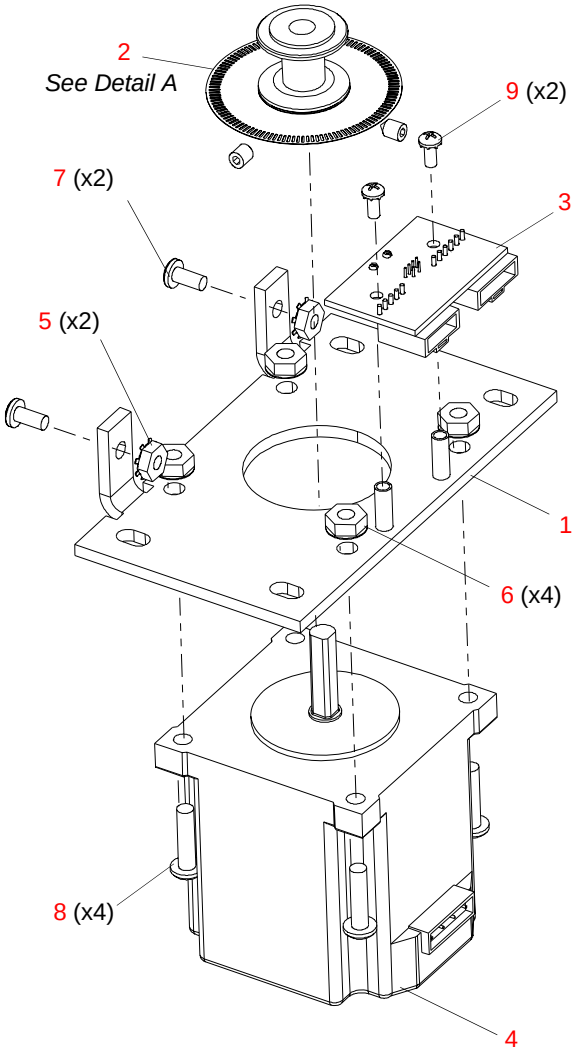
Tilt Motor Assembly

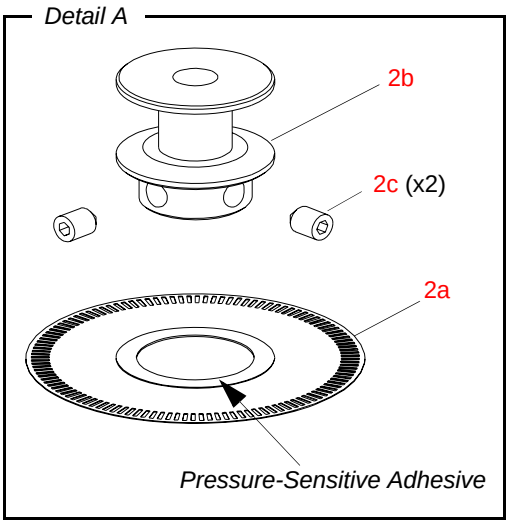
21.9678.0765 Rev E

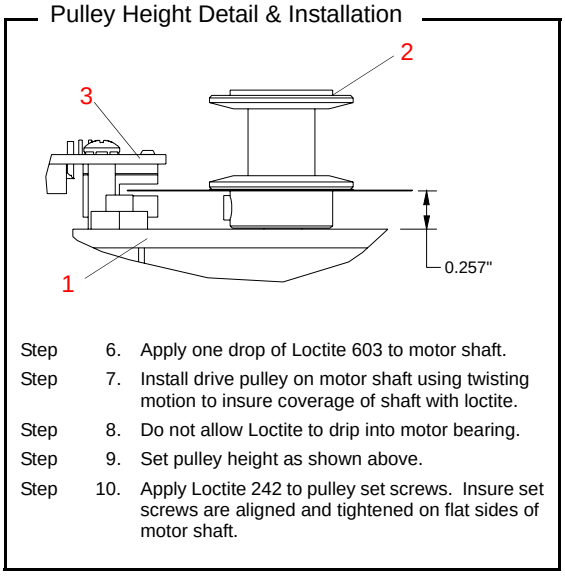
Refer to Figure 3-45

No.	Item	Qty.	UM.	Description
1	10.9678.0763	1	EA	PLATE, TILT MOTOR MOUNT
2	21.9678.0708	1	EA	ASSY, DRIVE PULLEY
2a	10.9678.0720	1	EA	CODEWHEEL, 120 COUNT, LARGE ID
2b	10.9678.1749	1	EA	TIMING PULLEY, 17 TOOTH, SHORTENED
2c	53.5560.0250	2	EA	SCREW, 8-32 X 1/4" SET CONE POINT
3	24.9661.9629	1	EA	PCB ASSY, PAN/TILT ENCODER
4	44.9678.0680	1	EA	MOTOR, 3 PHASE SIZE 23 HIGH TORQUE
5	53.2200.0006	2	EA	NUT, 6-32 KEPS SS
6	53.2200.0008	4	EA	NUT, 8-32 KEPS SS
7	53.6525.0001	2	EA	SCREW, 6-32 X 5/16" PPZ
8	53.6546.0001	4	EA	SCREW, 8-32 X 5/8" PPB
9	53.6682.0002	2	EA	SCREW, 4-40 X 1/4"LG PPZ SEMS-EXT

Tilt Motor Assembly (continued)







Step 6. Apply one drop of Loctite 603 to motor shaft.

Step 7. Install drive pulley on motor shaft using twisting motion to insure coverage of shaft with loctite.

Step 8. Do not allow Loctite to drip into motor bearing.

Step 9. Set pulley height as shown above.

Step 10. Apply Loctite 242 to pulley set screws. Insure set screws are aligned and tightened on flat sides of motor shaft.

Note: Vari-Lite recommends that this assembly be replaced as a complete assembly. Although you can replace only the motor, the pulley (Item 2) is bonded to the motor shaft during assembly and cannot be removed intact. If you order a replacement motor (Item 4), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

Figure 3-45: Tilt Motor Assembly

Yoke Fan Assembly

22.9661.0609 Rev C (VL3000)
22.9678.0609 Rev A (VL3000Q)

Refer to Figure 3-46

No.	Item	Qty.	UM.	Description
1	10.9661.0646	1	EA	FAN TRAY
2	40.7113.0001	1	EA	FAN, +24V 80 X 80 X 25MM, 32CFM
3	53.2200.0006	1	EA	NUT, 6-32 KEPS SS
4	55.2179.0003	1	EA	CABLE SADDLE, .75 X .75 4WAY, VL3000 QUIET **(NOT SHOWN)**
5	55.2186.0001	1	EA	CABLE TIE, .10 WD X 4" LG, VL3000 QUIET **(NOT SHOWN)**

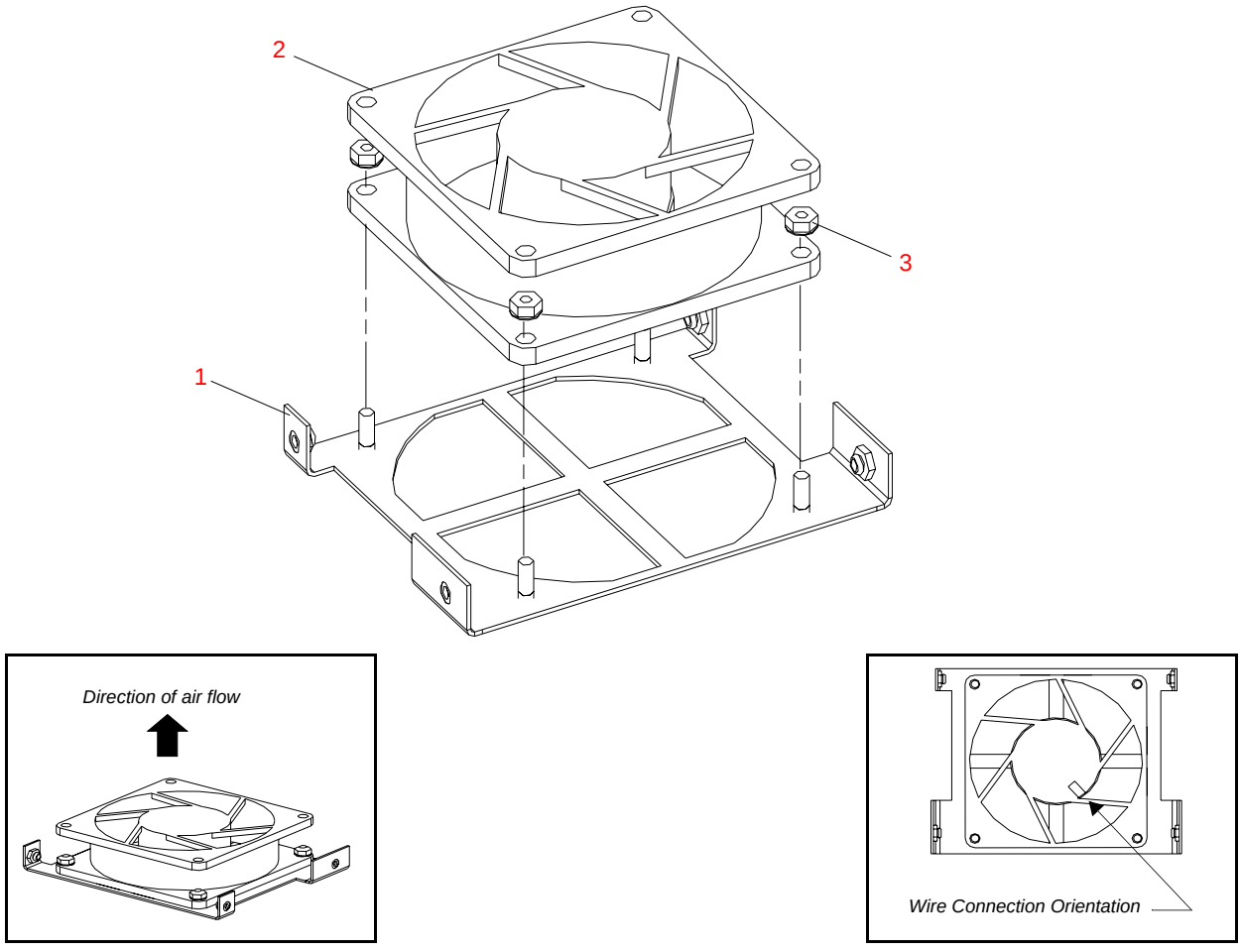


Figure 3-46: Yoke Fan Assembly

Notes

Head/Yoke PCB Assemblies

Color Sensor PCB #1 Mount Assembly

22.9678.0481 Rev B

Refer to Figure 3-47

No.	Item	Qty.	UM.	Description
1	10.9678.0482	1	EA	PCB MOUNT, COLOR SENSOR #1
2	24.9678.3480	1	EA	PCB ASSY, VL3000 COLOR SENSOR #1
3	53.6558.0001	2	EA	SCREW, 6-32 X 3/8" PPZ
4	55.3303.0006	2	EA	WASHER, #6 LOCK INT.TOOTH SS

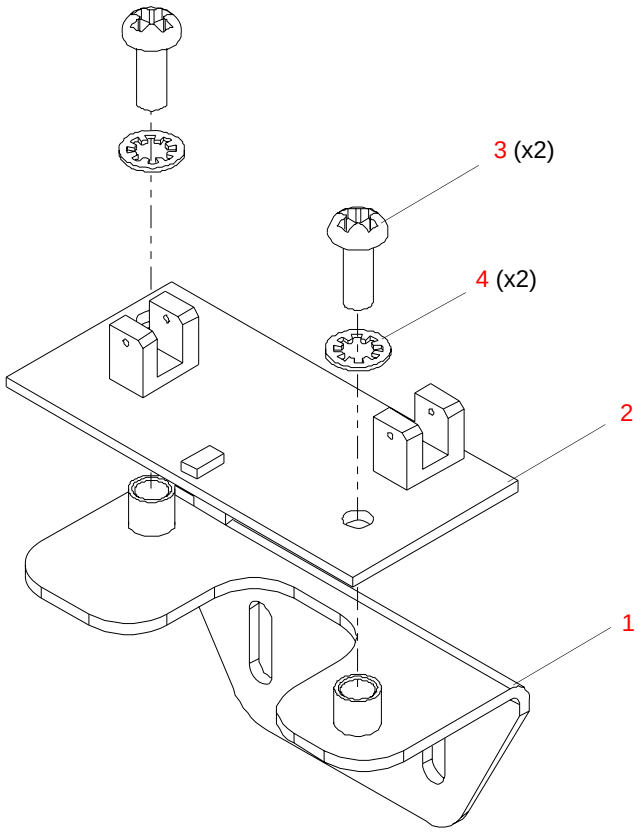


Figure 3-47: Color Sensor #1 PCB Mount Assembly

Color Sense PCB #2 Mount Assembly

22.9678.0489 Rev B

Refer to Figure 3-48

No.	Item	Qty.	UM.	Description
1	10.9678.0452	1	EA	PCB MOUNT, COLOR SENSE #2
2	24.9678.3454	1	EA	PCB ASSY, COLOR SENSOR #2
3	53.6558.0007	2	EA	SCREW, 6-32 X 1/4" SEMS

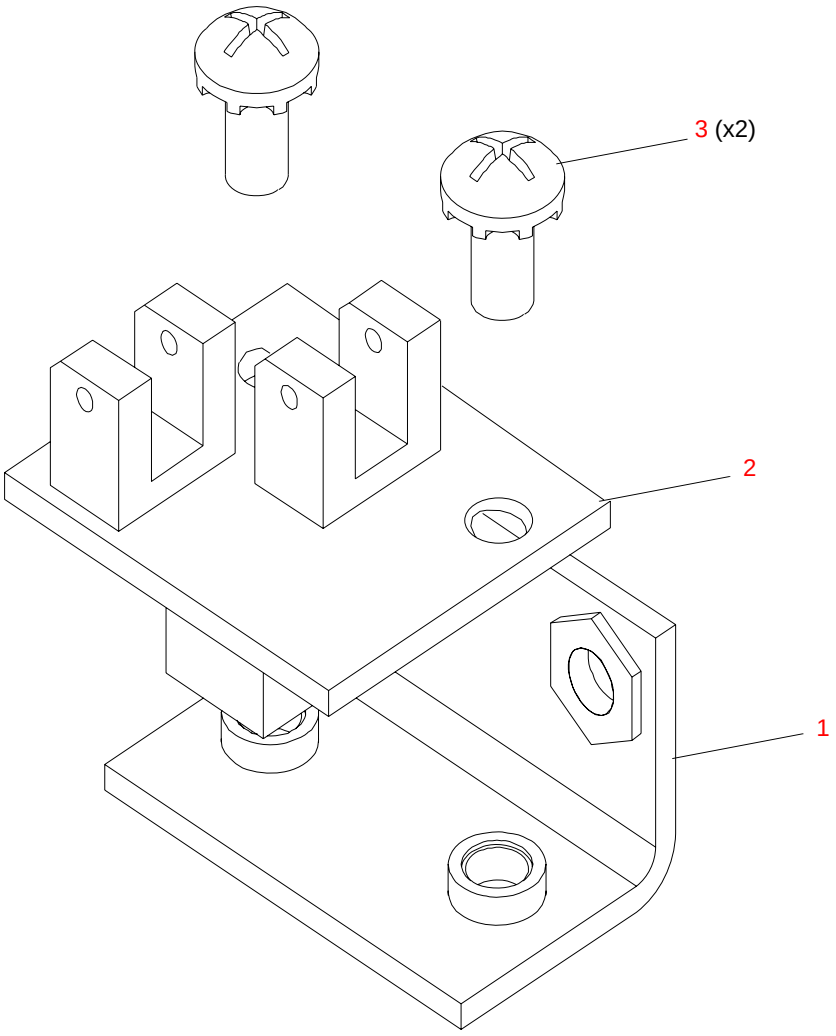


Figure 3-48: Color Sense PCB #2 Mount Assembly

VL3000 Controller PCB

24.9678.3730 Rev 0

Note: This item is only available as an assembly.

Refer to Figure 3-48

No.	Item	Qty.	UM.	Description
-	85.3773.002	AR	EA	IC, DRIVER **(FOR USE WITH CARDS WITH SOCKETS ONLY)**

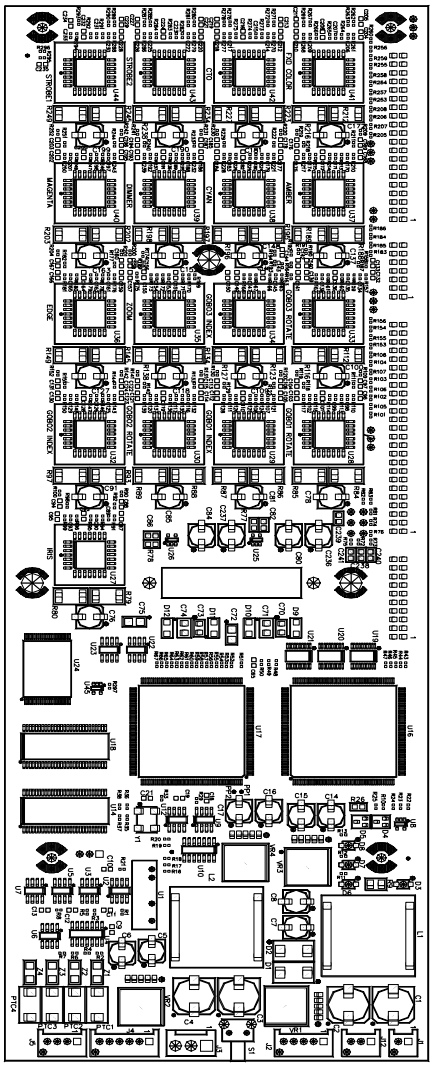


Figure 3-49: VL3000 Controller PCB

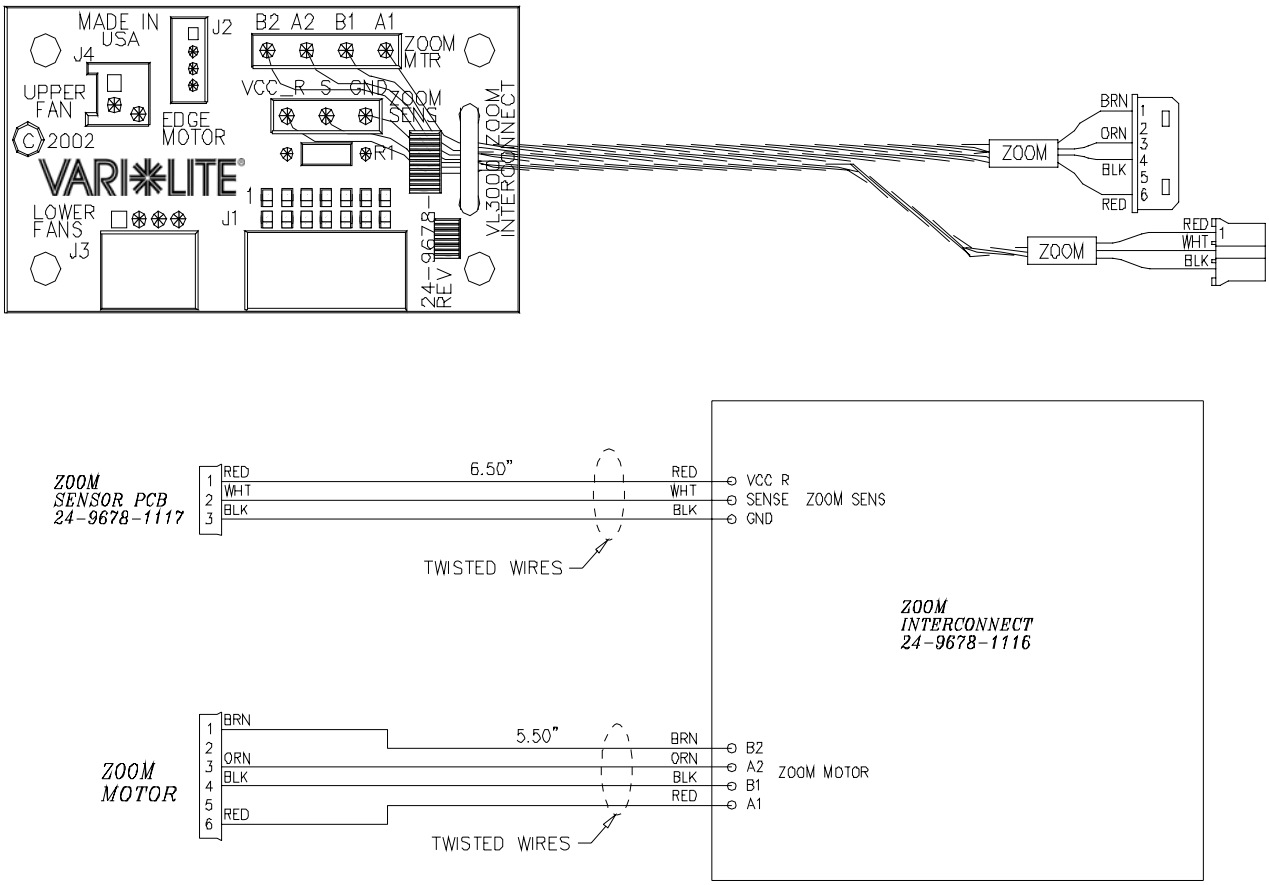
Zoom Interconnect PCB Assembly

24.9678.3116 Rev 0 (Spot Only)

Refer to Figure 3-50

Ref.	Item	Qty.	UM.	Description
-	04.9678.1116.00	1	EA	LABEL SET ZOOM HARNESS (**Not Shown**)
-	11.9678.1116	1	EA	PCB ZOOM INTERCONNECT
J3	52.6259.0008	1	EA	HDR 4POS NT\MTA100 SD RT ANG
J4	52.6260.0015	1	EA	HEADER, 2POS MTA-100 SHROUDED
J2	52.6447.0009	1	EA	HEADER, SHROUDED 4 POSITION
	52.6467.0009	1	EA	CONN, FEM PLUG 3POS 30-24AWG
	52.6467.0010	3	EA	CONTACT, SOCKET 30-24AWG CRIMP
J1	52.6598.0029	1	EA	HDR 14P 2ROW AMP MODU R/A
	52.6662.0007	1	EA	HOUSING, 6POS 125V/2A 2.00
	52.8388.0003	4	EA	CONTACT, 24-30AWG FEMALE CRI
	55.2186.0001	1	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
R1	60.1440.2703	1	EA	RES, 1/4W 5% 270.0 OHM CF
	73.2324.0030	0.54	FT	WIRE, 24 AWG 3CD TW 300V 200C
	73.2324.0124	0.46	FT	WIRE, 24 AWG 4CD TW 300V 200C

Zoom Interconnect PCB Assembly (continued)



WIRE CHART					
FROM	TO	CONN ITEM NO.	WIRE COLOR	WIRE ITEM NO.	FUNCTION
A1 – ZOOM MTR	PIN 6	10	RED	14	ZOOM MOTOR – 1A
B1 – ZOOM MTR	PIN 4	10	BLK	14	ZOOM MOTOR – 1B
A2 – ZOOM MTR	PIN 3	10	ORN	14	ZOOM MOTOR – 2A
B2 – ZOOM MTR	PIN 1	10	BRN	14	ZOOM MOTOR – 2B
VCC_R – ZOOM SENS	PIN 1	6	RED	16	VCC_R – ZOOM SENSOR
S – ZOOM SENS	PIN 2	6	WHT	16	SENSE – ZOOM SENSOR
GND – ZOOM SENS	PIN 3	6	BLK	16	GND – ZOOM SENSOR

Figure 3-50: Zoom Interconnect PCB Assembly

Notes

Enclosure Assembly

Upper Enclosure Assembly

21.9678.0800.01 Rev NN (VL3000)
21.9678.0801.01 Rev Z (VL3000Q)

Refer to Figure 3-51, Figure 3-52, and Figure 3-53

No.	Item	Qty.	UM.	Description
1	04.9640.0374	1	EA	LABEL, P.E. GROUND
2	04.9661.1218.01	1	EA	LABEL, PATENT, VL2201 & VL2400 SERIES LUM.
3	04.9678.0040.01	1	EA	LABEL, VL3000 COMPLIANCE
	04.9678.0045	1	EA	LABEL, VL3000 QUIET COMPLIANCE
4	06.6032.0009	1	EA	CABLE MARKER TIE, WHITE 19 X 7
5	10.9661.1258	1	EA	BRACKET, APS SIDE
6	10.9661.1358	1	EA	AIR SEAL, DUCT
7	10.9678.0820	1	EA	LANYARD, PAN TUBE
8	10.9686.0839	2	EA	COVER, TOP
9	10.9686.0846	2	EA	HANDLE, CAST ENCLOSURE
10	10.9678.0869	1	EA	BRACKET, LVS
11	10.9678.0886	1	EA	SPACER, PAN BEARING 0.235" THK
12	10.9678.0892	1	EA	BUSHING, WIRE PROTECTION PAN
13	10.9678.1876	1	EA	AIR DIST PLENUM, 1200W S W BALLAST P/S
14	12.9686.1236	2	EA	MACHINED, COVER FRONT
15	12.9686.1238	2	EA	MACHINED, COVER SIDE
16	12.9678.0842	1	EA	AIR DUCT, UPPER ENCLOSURE MOD
17	12.9678.1862	1	EA	SHIELDED BALLAST, CCI
18	21.9678.1254	1	EA	ASSY, COVER - VENTILATION
	21.9686.0840.02	1	EA	ASSY, COVER - VENT, VL3000 QUIET, ALUMINUM (**not shown**)
19	21.9678.0767	1	EA	ASSY, STABILIZER
19a	- 10.9678.0757	1	EA	STABILIZER, 1.377DIA
19b	- 10.9678.0762	1	EA	BRACKET, STABLIZER
19c	- 53.6610.0003	1	EA	SCREW, 6-32 X 7/16" PPZ
19d	- 55.6568.0075	1	EA	SPRING, EXTSN 0.375" OD 1.00" LG 0.041" WIRE DIA
20	21.9678.0805	1	EA	ASSY, PANEL
21	21.9678.0807	1	EA	ASSY, PAN PULLEY
22	21.9678.0864	1	EA	ASSY, PAN MOTOR

No.	Item	Qty.	UM.	Description
23	21.9678.0881	1	EA	ASSY, PAN TUBE
24	22.9678.0851	1	EA	ASSY, UPPER ENCLOSURE
25	23.9678.0686	1	EA	FAN ASSY, UPPER ENCLOSURE
26	23.9678.0687	1	EA	ELEC ASSY, PAN EOT SENSOR
-	25.9661.1514	1	EA	CABLE ASSY, LVS CHASSIS GND (**not shown**)
-	25.9661.1520	1	EA	CABLE ASSY, CHASSIS TO YOKE GND (**not shown**)
-	25.9678.0811	1	EA	CABLE ASSY, EMI FILTER TO POWER (**not shown**)
-	25.9678.0812	1	EA	CABLE ASSY, AC INPUT SPLITTER (**not shown**)
-	25.9678.0813	1	EA	CABLE ASSY, DATA I/O LINK (**not shown**)
-	25.9678.0816	1	EA	CABLE ASSY, BALLAST TO CONTROL (**not shown**)
-	25.9678.0818	1	EA	CABLE ASSY, PAN/TILT CONTROL (**not shown**)
-	25.9678.0821	1	EA	CABLE ASSY, DC OUTPUT (**not shown**)
-	25.9678.1825	1	EA	CABLE ASSY, DISPLAY (**not shown**)
-	25.9678.0829	1	EA	CABLE ASSY, LAMP SUPPLY TO RELAY (**not shown**)
-	25.9678.0843	1	EA	CABLE ASSY, AC FAN LVS TO YOKE (**not shown**)
27	52.8295.0002	1	EA	TERMINAL STRIP, 300V 12AWG 20A
28	53.2001.0003	1	EA	NUT, 10-32 NYLON INSERT
29	53.2019.0004	4	EA	NUT, 3/8-16 X 7/32" THK HEX
30	53.2200.0006	4	EA	NUT, 6-32 KEPS SS
31	53.6505.0022	3	EA	BOLT, 3/8-16 X 3/4"LG CARR
32	53.6513.0044	3	EA	SCREW, M5 X 10MM STL CUP PT
33	53.6515.0001	4	EA	SCREW, 10-32 X 3/4" SCB CAP
34	53.6522.0001	1	EA	SCREW, 6-32 X 1/4" PPZ
35	53.6522.0004	2	EA	SCREW, 6-32 X 1/4" SOC HD
36	53.6525.0188	2	EA	SCREW, 6-32 X 3/16" PPZ SEMS
37	53.6530.0023	2	EA	RIVET, 1/8"OD POP .376-.500GRP
38	53.6539.0001	4	EA	WASHER, 3/8" SPLIT LOCK
39	53.6545.0003	4	EA	SCREW, 8-32 X 3/8" PFZ
40	53.6545.0004	4	EA	SCREW, 8-32 X 3/8" PPZ
41	53.6556.0002	1	EA	SCREW, 4-40 X 3/4"LG
42	53.6558.0009	13	EA	SCREW, 6-32 X 3/8"LG PPZ SEMS
43	53.6558.0010	11	EA	SCREW, 6-32 X 1/4"LG PPZ BLACK
44	53.6558.0015	4	EA	SCREW, 6-32 X 3/8" PPB SEMS EXT
45	53.6571.0003	1	EA	SCREW, 6-32 X 1-1/2"LG PPB
46	53.6591.0001	2	EA	SCREW, 6-32 X 1/4" PFZ
47	53.6609.0001	4	EA	SCREW, 6-32 X 3/8" PFZ
48	53.6626.0001	1	EA	SCREW, 10-32 X 1/2" PPZ
49	53.6634.1000	1	EA	SCREW, 3/8-16 X 1.00" LG SOC

No.	Item	Qty.	UM.	Description
50	53.6653.0502	4	EA	SCREW, 1/4-20 X 1/2"LG SOC (**NOT USED ON VL3000Q**)
51	54.1206.0014	2	EA	RING, RETAINING
52	54.1255.0001	1	EA	BEARING ASSY, BLACK FLUSH MOU
53	54.2055.0001	1	EA	BELT, TIMING S2M 210GROOVE 9MM
54	55.2150.0003	2	EA	STANDOFF, 1/4"HEX 6-32 1.125"L
55	55.2178.0001	2	EA	CABLE ANCHOR MOUNT, #8 SCREW
56	55.2179.0001	3	EA	CABLE ANCHOR MOUNT, #6 SCREW
57	55.2186.0001	5	EA	CABLE TIE, .10"WD 4.00"LG SMALL
58	55.2261.0001	1	EA	SLEEVE, NYLON THIN WALL #6 SCR
59	55.2267.0001	2	FT	RUBBER STRIP, SPONGE CLSD CELL
60	55.6677.0039	4	EA	WASHER, 0.438" OD X 0.219" ID X 0.040" THK
61	55.6532.0004	2	EA	BRACKET, 6-32 THREADED HOLES
62	55.6543.0001	0.312	FT	GROMMET STRIP, SERRATED .062"
63	55.6543.0002	1.54	FT	GROMMET STRIP, SERRATED .125"
64	55.6549.0001	4	EA	WASHER, 1/4" SPLIT LOCK (**NOT USED ON VL3000Q**)
65	55.6568.0074	2	EA	SPRING, CPRSN .420"OD .750"LG 0.055" DIA WIRE
66	55.6575.0001	4	EA	SCREW, 10-32 X 3/4" PPB
67	55.6577.0005	2	EA	STANDOFF, 1/2" HEX 6-32 X 1.625" L
68	55.6580.0002	2	EA	CABLE TIE, 0.18" WD 8.0" LG
69	55.2132.0012	1	EA	STANDOFF, 1/4" HEX 6-32 X 3/4" LG
70	55.6677.0044	1	EA	WASHER, .877"OD.170"ID.093"THK
71	55.6699.0010	0.50	FT	SLEEVING, 5/16" NOM DIA WOVEN POLY ROUNDIT
72	55.6775.0009	1	EA	BUSHING, SNAP .750"ID 1"MT H
73	67.4018.0001	1	EA	FERRITE, 26 X 28.5 X 13MM CYL
74	67.4021.0002	1	EA	FILTER, EMI, CCI
75	68.9678.0827	1	EA	CHOKE, COMMON MODE
76	69.3177.0151	1	EA	POWER SUPPLY, 150W +24V/6.3A WMTH PLT (LAMBDA)
77	55.6799.0001	AR	EA	PAN TUBE BEARING SHIM, 1.375" ID 1.875" OD, 0.005" THK (**not shown**)
78	55.6799.0002	AR	EA	PAN TUBE BEARING SHIM, 1.375" ID 1.875" OD, 0.010" THK (**not shown**)

AR = As Required

Upper Enclosure Assembly (continued)

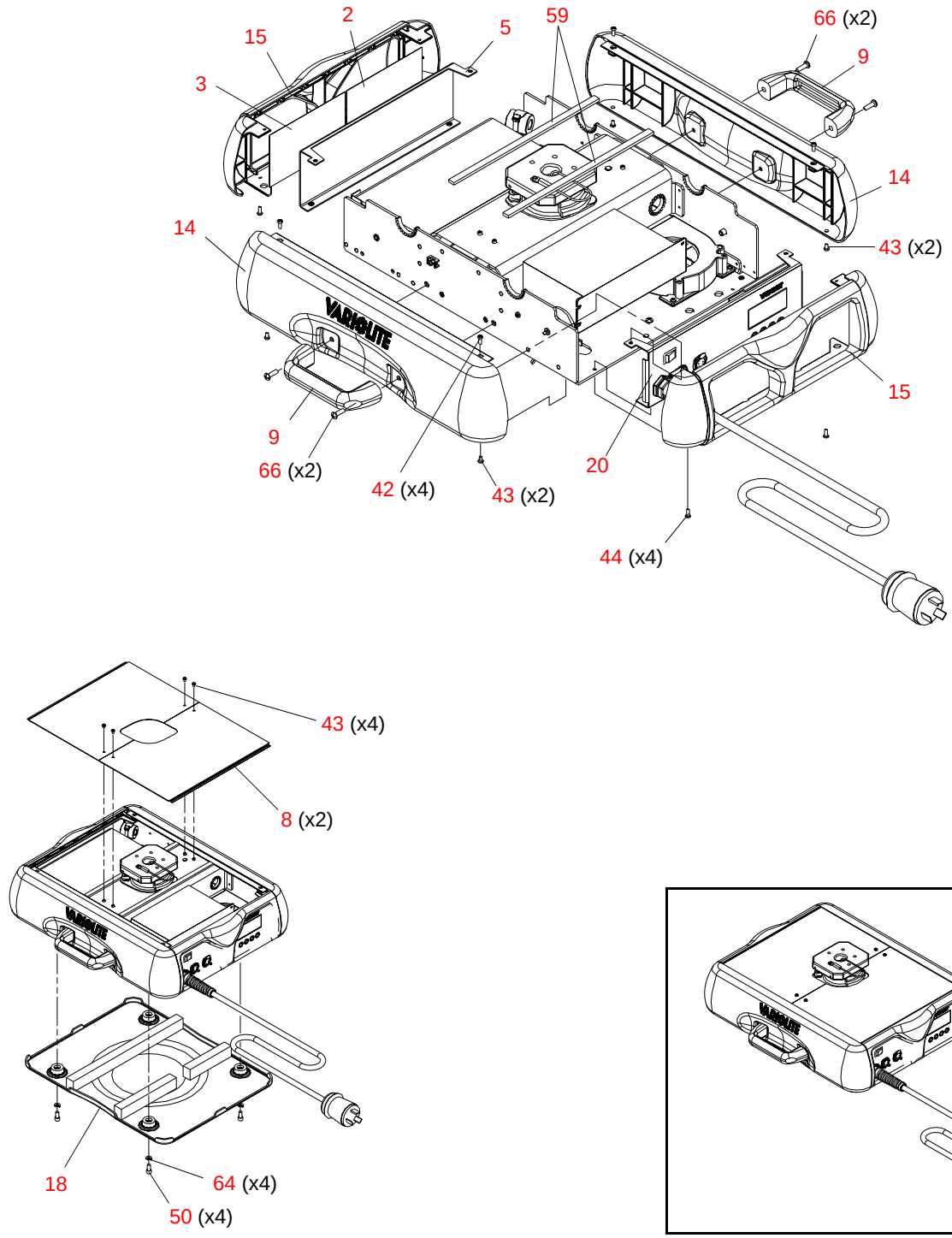


Figure 3-51: Upper Enclosure Assembly Part 1

Upper Enclosure Assembly (continued)

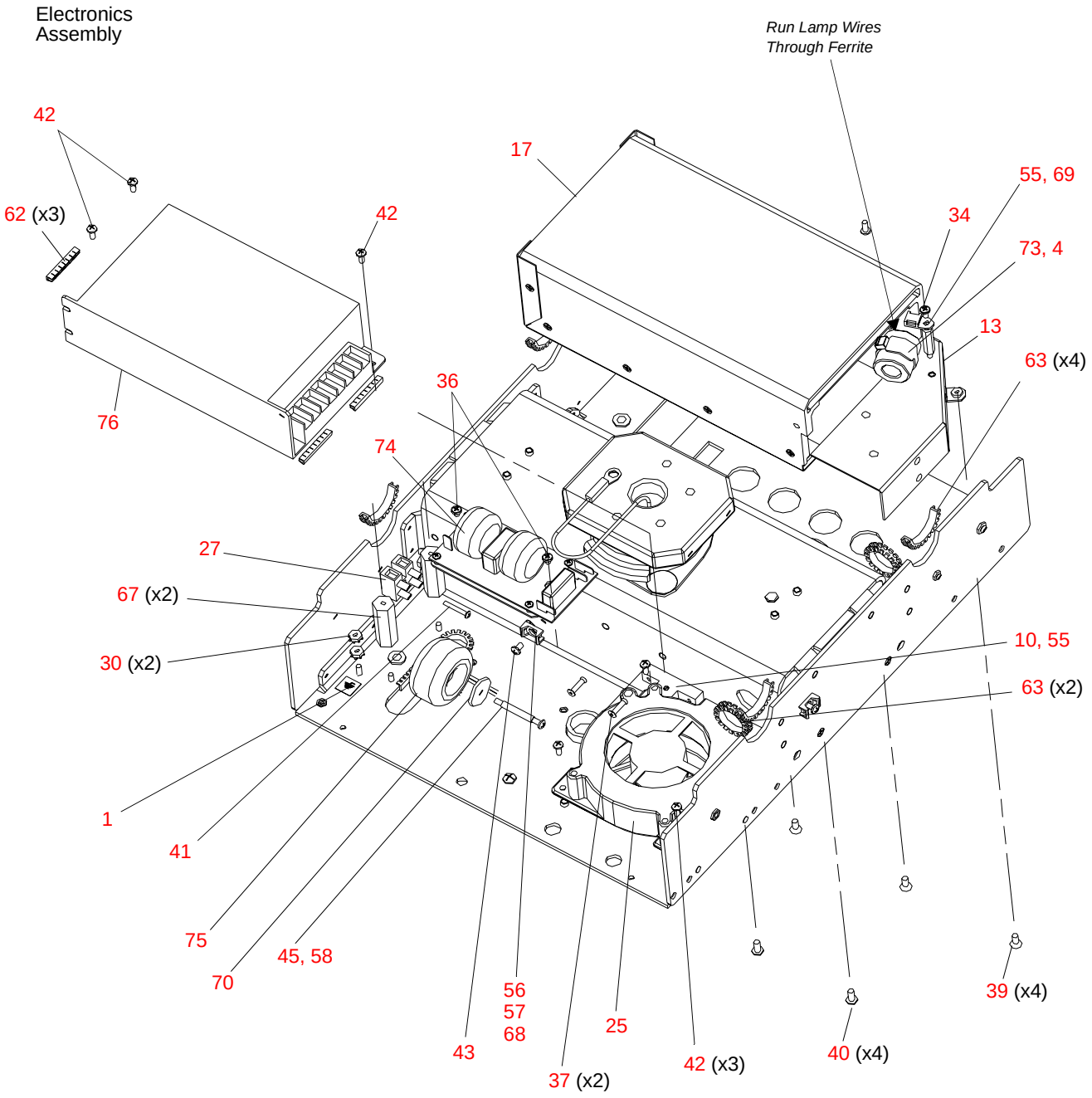
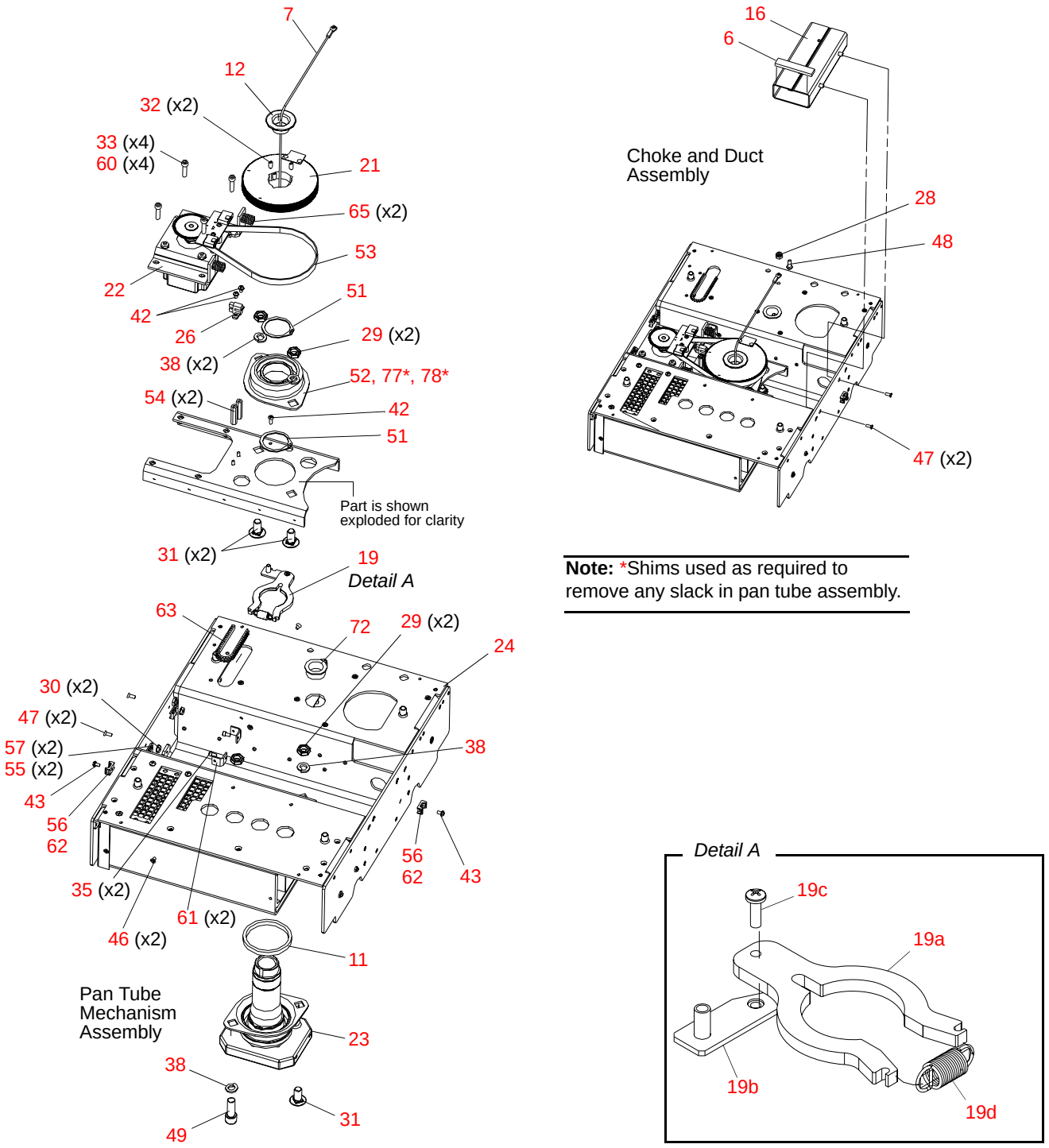


Figure 3-52: Upper Enclosure Assembly Part 2

Upper Enclosure Assembly (continued)



Note: *Shims used as required to remove any slack in pan tube assembly.

Figure 3-53: Upper Enclosure Assembly Part 3

Ventilation Cover Assembly - Standard

21.9678.1254 Rev 0 (VL3000)

Refer to Figure 3-54

No.	Item	Qty.	UM.	Description
1	10.9661.1249	4	EA	POST, TRUSS HOOK
2	10.9678.8350	1	EA	COVER, VENTILATION
3	10.9678.0893	1	EA	12" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05)
4	10.9678.0894	1	EA	6" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05)
5	10.9678.0896	1	EA	4.5" AIR SEAL, UPPER ENCLOSURE (changed 05-11-05)
6	54.1206.0015	4	EA	RING, RETAINING, PRESS-ON, 1" SH

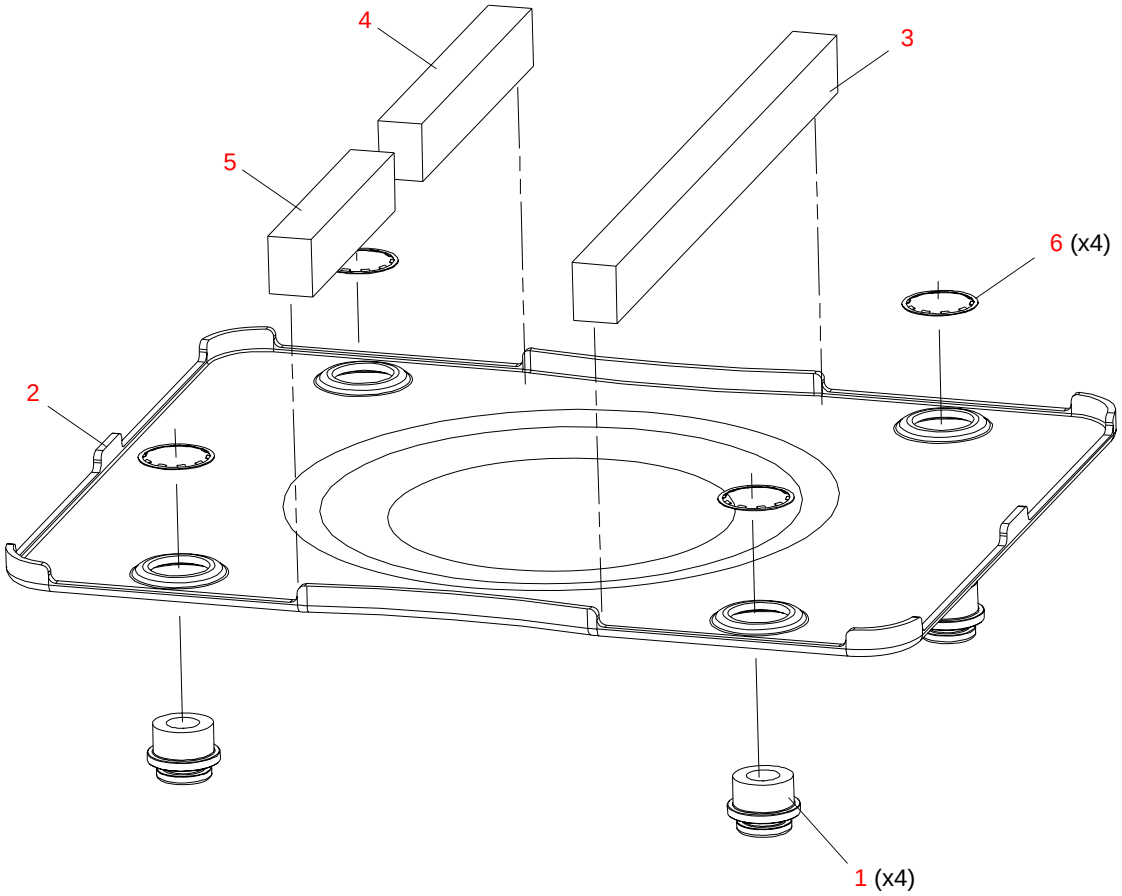


Figure 3-54: Ventilation Cover Assembly

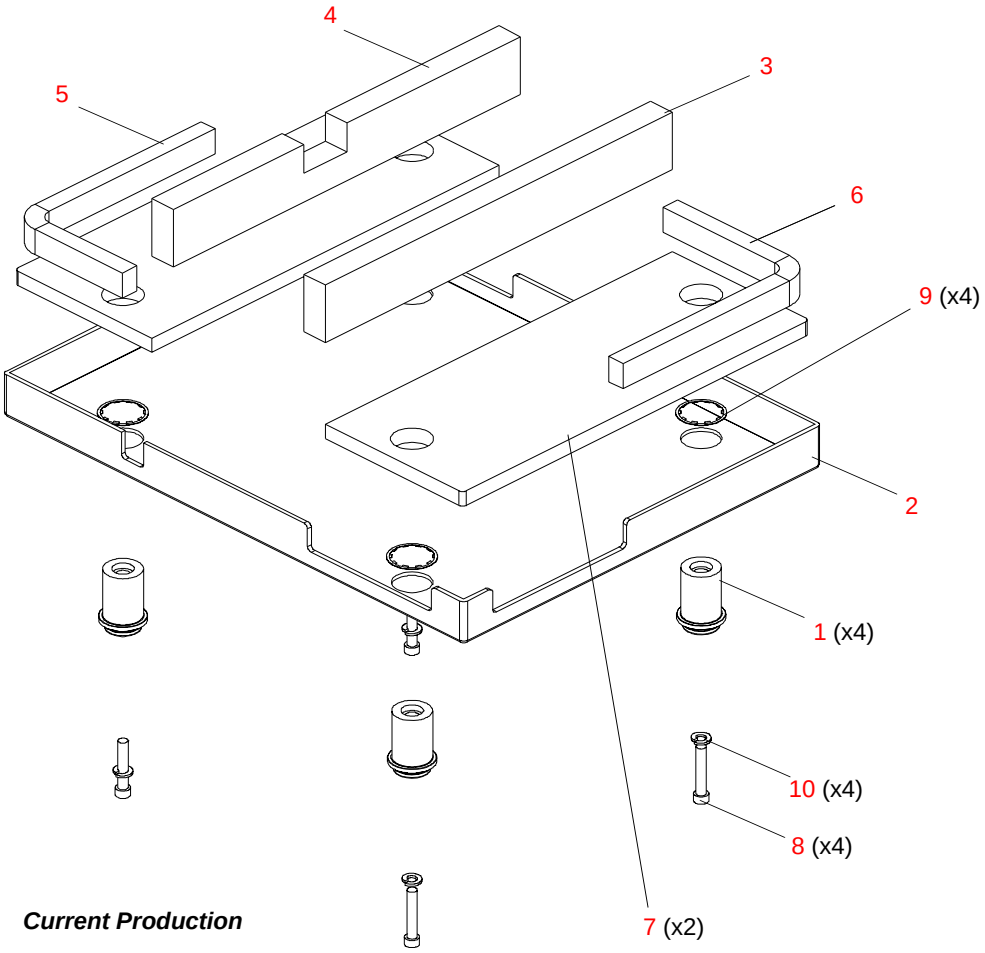
Ventilation Cover Assembly - VL3000 Quiet

21.9686.0840.02 Rev B (VL3000Q)

Refer to Figure 3-55

No.	Item	Qty.	UM.	Description
1	10.9686.1249	4	EA	POST, TRUSS HOOK
1a	10.9678.0850	4	EA	POST, TRUSS HOOK, SHORT, EARLY PRODUCTION
1b	10.9678.0833	4	EA	SPACER, 1.25 ", EARLY PRODUCTION
2	10.9686.0883	1	EA	COVER, VENTILATION
3	10.9678.0837	1	EA	AIR SEAL, FAN SIDE
4	10.9678.0838	1	EA	AIR SEAL, APS SIDE
5	10.9678.0835	1	EA	AIR SEAL, SHORT STRIP
6	10.9678.0836	1	EA	AIR SEAL, LONG STRIP
7	10.9678.0887	2	EA	RAIN COVER SOUND INSULATION, ALUMINUM COVER
8	53.6653.0027	4	EA	SCREW, 1/4-20 X 1 5/8 SOC HEAD
9	54.1206.0015	4	EA	RING, RETAINING, PRESS-ON, 1" SH
10	55.6549.0001	4	EA	WASHER, 1/4" SPLIT LOCK

Ventilation Cover Assembly - VL3000 Quiet (continued)



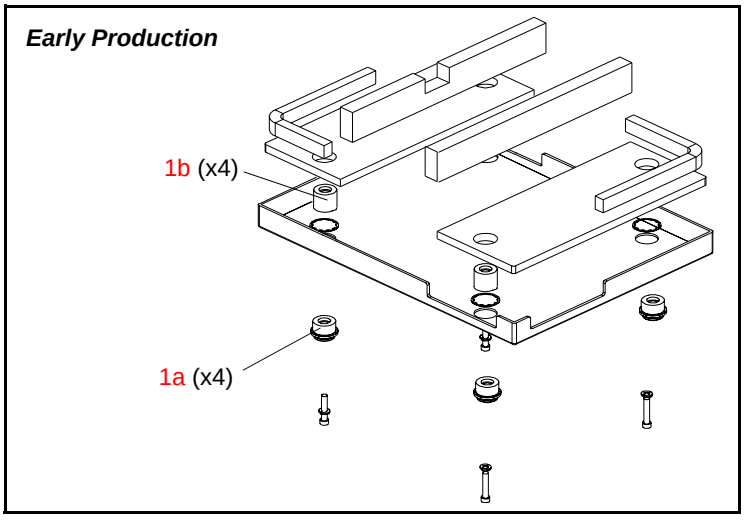


Figure 3-55: Ventilation Cover Assembly - VL3000Q

Panel Assembly

21.9678.0805 Rev N

Refer to Figure 3-56

No.	Item	Qty.	UM.	Description
1	10.9678.0852.01	1	EA	LAYOUT, ENCLOSURE OVERLAY
2	10.9678.0859	1	EA	BRACKET, INPUT
3	10.9678.0872	1	EA	STIFFENER, DISPLAY BOARD
4	10.9686.0820	1	EA	FILLER PANEL, DMX CONNECTOR
5	24.9663.3895	1	EA	PCB ASSY, DMX INPUT
6	25.9678.0810	1	EA	CABLE ASSY, AC INPUT PIGTAIL
7	24.9678.3825	1	EA	PCB ASSY, VL3000 DISPLAY
8	51-0541	4	EA	SCREW, 4- X 3/8" H/L BLK ZINC PLT
9	53.6558.0009	2	EA	SCREW, 6-32 X 3/8"LG PPZ SEMS EXT ZINC PLT
10	55.2284.0001	1	EA	CARD GUIDE, SNAP-IN 3" LONG, NYLON NATURAL
11	74.2000.0002	1	EA	SWITCH, ROCKER, 2 POLE, HIGH CURRENT, BLACK

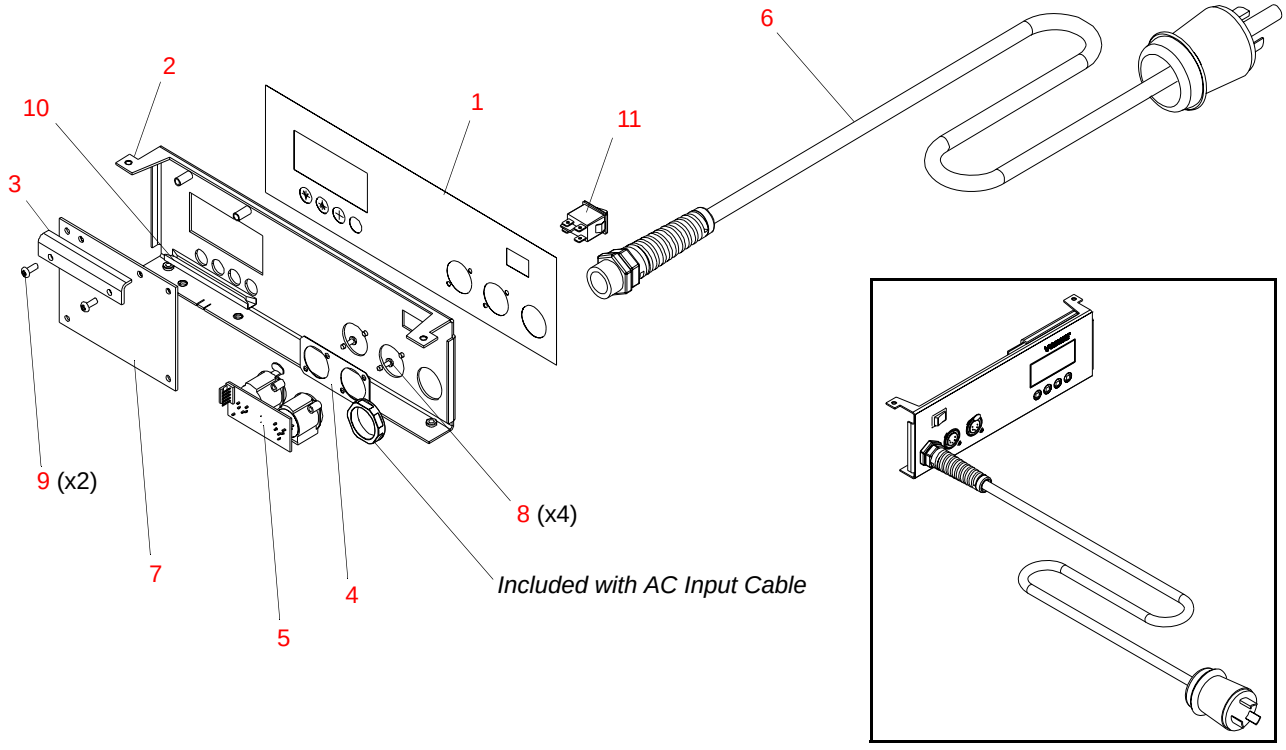


Figure 3-56: Panel Assembly

DMX Input PCB

24.9663.3895 Rev 0

Refer to Figure 3-57

No.	Item	Qty.	UM.	Description	Ref.
1	17.9663.3895	1	EA	PCB FAB, DMX INPUT	-
2	52.6259.0006	1	EA	HEADER, 5POS MTA FRCT LOK STRT POST	J3
3	52.6625.0006	1	EA	CONN, RECEPT XLR 5PIN FEMALE PC MT VERTICAL	J1
4	52.6626.0006	1	EA	CONN, RECEPT XLR 5PIN MALE PC MT VERTICAL	J2
5	62.3039.0102	1	EA	CAP, 1000P 250V 20% CDE X-Y	C1

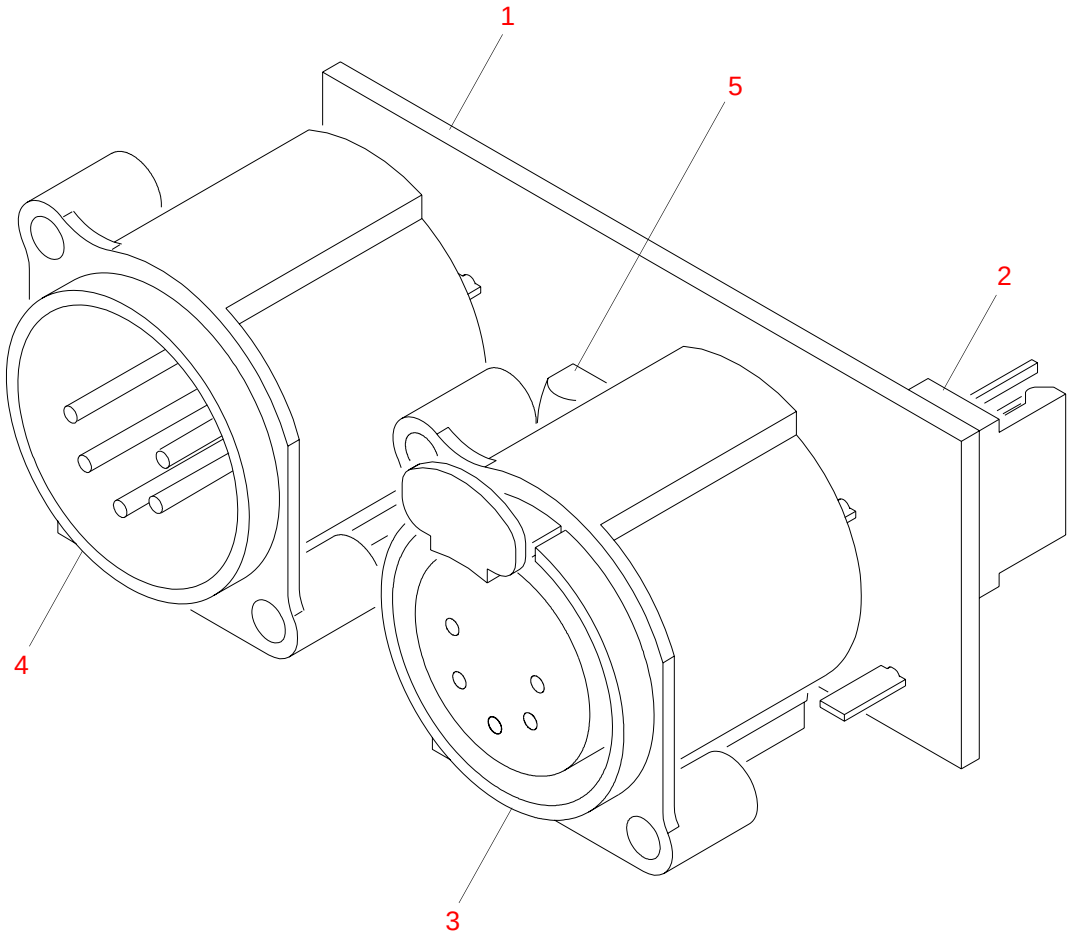


Figure 3-57: DMX Input PCB

AC Input Pigtail Cable Assembly

25.9678.0810 Rev B

Refer to Figure 3-58

No.	Item	Qty.	UM.	Description
1	52.6274.2313	1	EA	STRAIN RELIEF, SKINTOP FLEX TYPE PG13 BLK
2	52.6401.2321	1	EA	CONN, PLUG "CE MARKED" 20A 250V TWIST-LOCK MALE LINE, 3-WIRE
3	52.8231.0005	1	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
4	52.8298.1160	2	EA	FERRULE, WIRE 1X16 AWG L2=8MM BLACK
5	55.2268.0187	0.92	FT	HEATSHRINK, 3/16" CLEAR KYNAR UL 600V 150DEG C
6	55.2268.0500	0.13	FT	HEATSHRINK, 1/2" CLEAR KYNAR UL 600V 150DEG C
7	73.9636.0153	4.00	FT	CORDAGE, 1.5/3 750V 60C EURO BLK HD-22 11MM OD

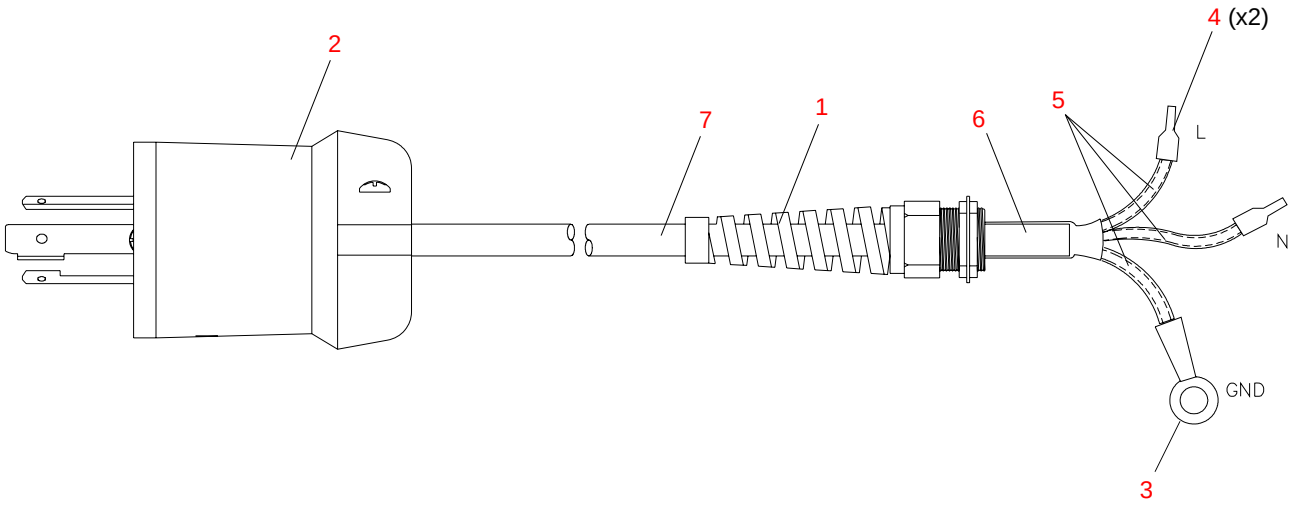


Figure 3-58: AC Input Pigtail Cable Assembly

Pan Pulley Assembly

21.9678.0807 Rev E

Refer to Figure 3-59

No.	Item	Qty.	UM.	Description
1	10.9678.0750	1	EA	TIMING PULLEY, 2MM GT 150 TOOTH
2	10.9678.0855	1	EA	PAN FLAG
3	53.6530.0009	2	EA	RIVET, 1/8"OD POP 0.126-0.187GL (changed 10-05-06)

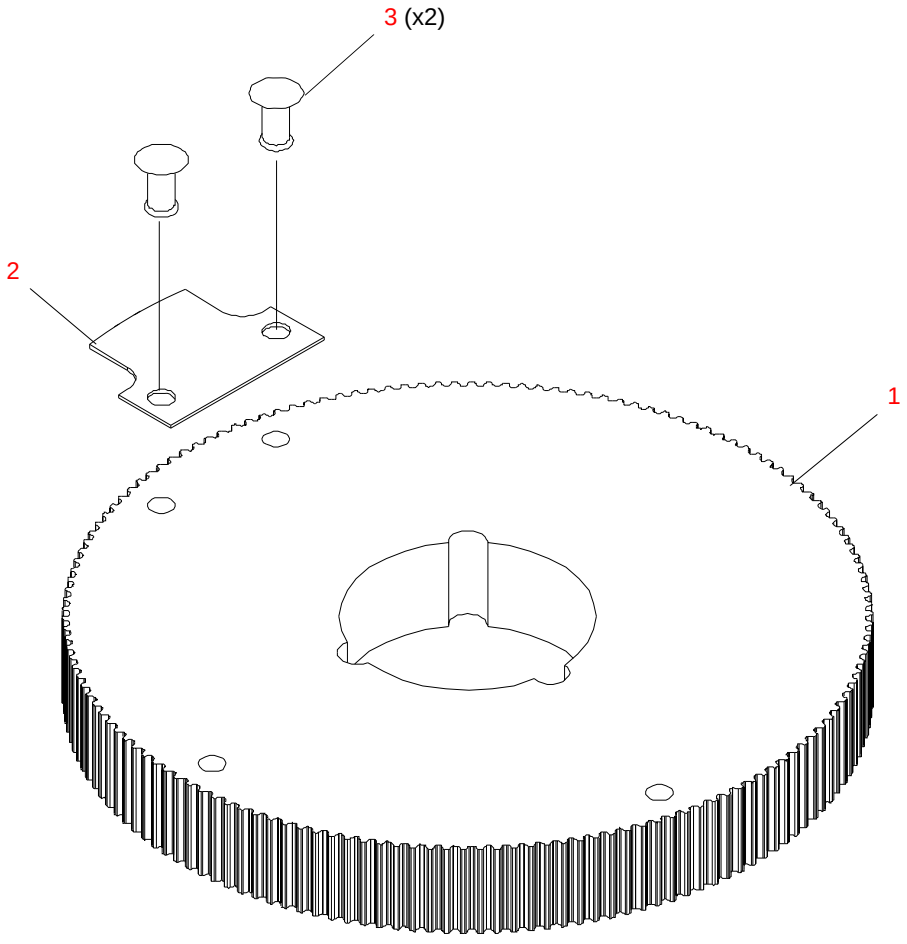


Figure 3-59: Pan Pulley Assembly

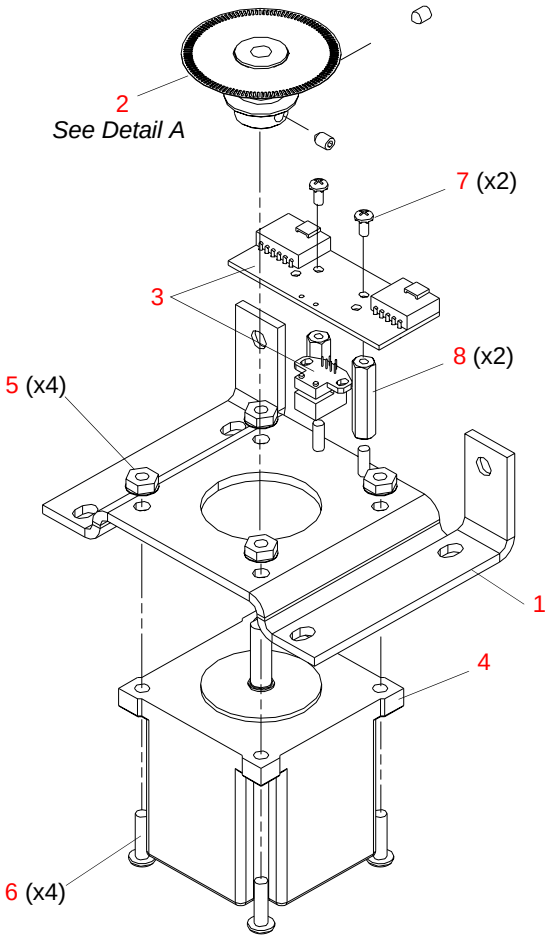
Pan Motor Assembly

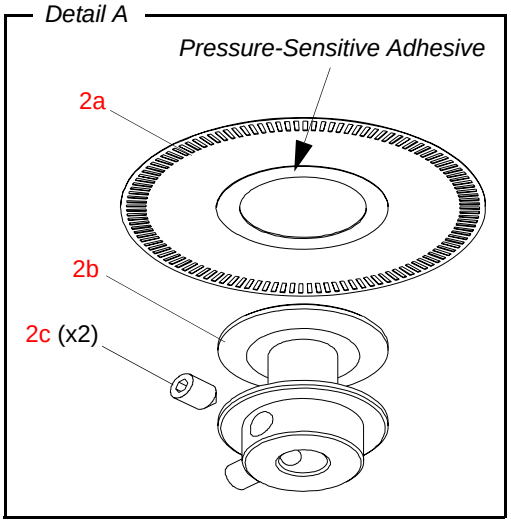
21.9678.0864 Rev E

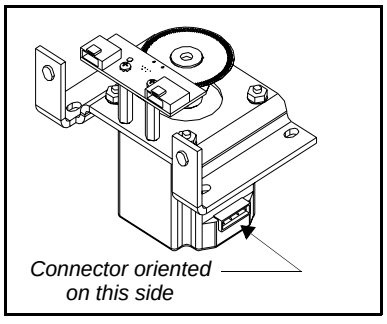
Refer to Figure 3-60

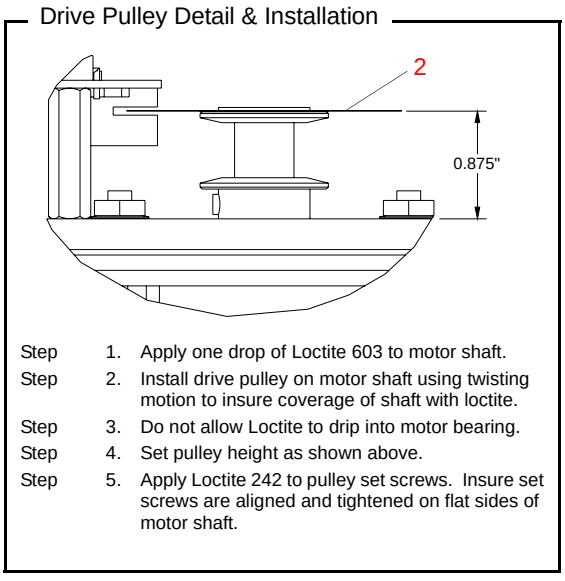
No.	Item	Qty.	UM.	Description
1	10.9678.0865	1	EA	PLATE, PAN MOTOR MOUNT
2	21.9678.0828	1	EA	ASSY, DRIVE PULLEY, PAN
	- 10.9686.8720	1	EA	CODEWHEEL, 120 COUNT LARGE ID
	- 10.9678.0749	1	EA	TIMING PULLEY, 2MM GT 17 TOOTH
	- 53.5560.0250	2	EA	SCREW, 8-32 X 1/4" SET FLAT POINT
3	24.9678.9729	1	EA	PCB ASSY, VL3000 PAN ENCODER (changed 06-27-07)
4	44.9678.0680	1	EA	MOTOR, 3 PHASE SIZE 23 HIGH TORQUE
5	53.2200.0008	4	EA	NUT, 8-32 KEPS SS
6	53.6546.0001	4	EA	SCREW, 8-32 X 5/8" PPB
7	53.6682.0002	2	EA	SCREW, 4-40 X 1/4"LG PPZ SEMS-EXT
8	55.2132.0014	2	EA	STANDOFF, 1/4"HEX 4-40 1.062" LG CS (changed 05-18-06)

Pan Motor Assembly (continued)








Drive Pulley Detail & Installation
2
0.875"
Step 1. Apply one drop of Loctite 603 to motor shaft.
Step 2. Install drive pulley on motor shaft using twisting motion to insure coverage of shaft with loctite.
Step 3. Do not allow Loctite to drip into motor bearing.
Step 4. Set pulley height as shown above.
Step 5. Apply Loctite 242 to pulley set screws. Insure set screws are aligned and tightened on flat sides of motor shaft.

Note: Vari-Lite recommends that this assembly be replaced as a complete assembly. Although you can replace only the motor, the pulley (Item 2) is bonded to the motor shaft during assembly and cannot be removed intact. If you order a replacement motor (Item 4), also order the pulley (Item 2). Contact Vari-Lite Customer Service for installation information.

Figure 3-60: Pan Motor Assembly

Pan Tube Assembly

21.9678.0881 Rev 0

Refer to Figure 3-61

No.	Item	Qty.	UM.	Description
1	10.9678.0809	1	EA	PAN TOGGLE STOP
2	10.9678.0847	1	EA	SILICONE FOAM WASHER
3	10.9678.0848	2	EA	WASHER, PAN TEFLON
4	12.9678.0877	1	EA	PAN TUBE, MACHINED
5	54.1206.0021	1	EA	RING, RETAINING 1.562"SHAFT 1.468"GRV DIA .068"GRVWD EXTERNAL
6	54.1255.0002	1	EA	BEARING ASSY, FLUSH MOUNT HOUSING LARGE

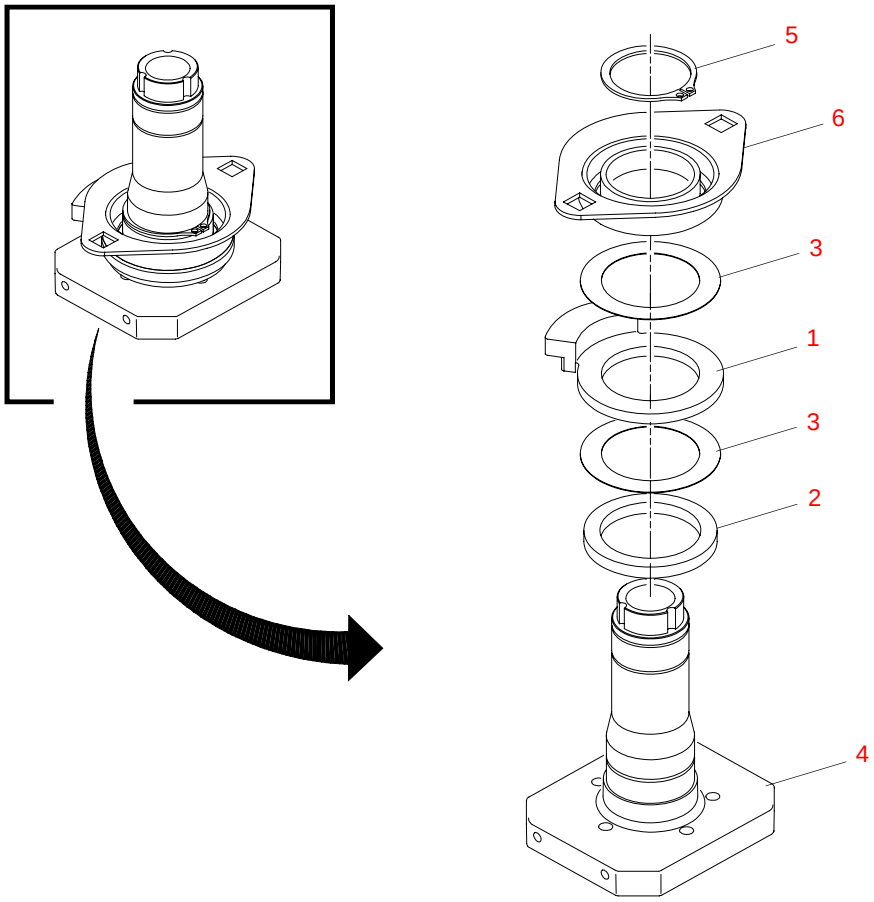


Figure 3-61: Pan Tube Assembly

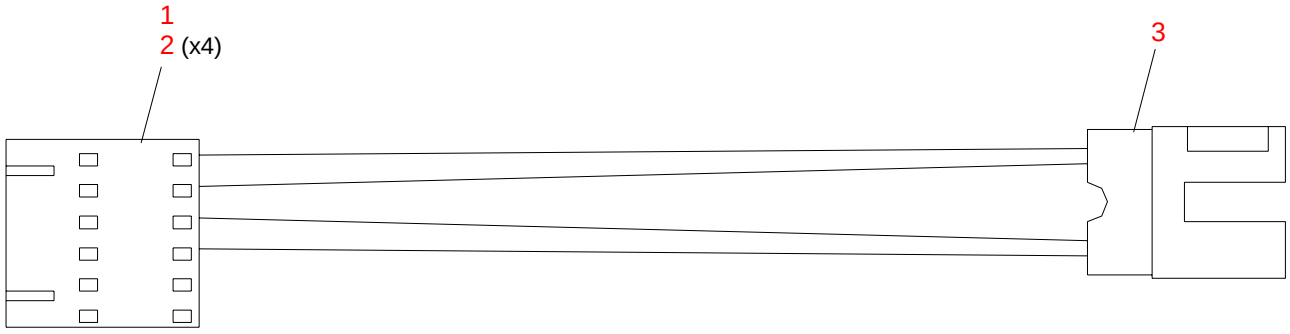
Cable Assemblies

Pan EOT Sensor Electrical Assembly

23.9678.0687 Rev A

Refer to Figure 3-62

No.	Item	Qty.	UM.	Description
1	52.6524.0006	1	EA	CONN, HOUSING 6 POS RECEPTACLE
2	52.8346.0001	4	EA	CONTACT, 24-30AWG FEMALE CRIMP
3	86.7002.0003	1	EA	SWITCH, SLOTTED OPTICAL



WIRE CHART		
CONNECTOR	SENSOR	DESCRIPTION
PIN 1	N.C.	NO CONNECTION
PIN 2	N.C.	NO CONNECTION
PIN 3	BLACK	IRED CATHODE
PIN 4	RED	IRED ANODE
PIN 5	GREEN	DETECTOR EMITTER
PIN 6	WHITE	DETECTOR COLLECTOR

Figure 3-62: Pan EOT Sensor Electrical Assembly

LVS Chassis Ground Cable Assembly

25.9661.1514 Rev A

Refer to Figure 3-63

No.	Item	Qty.	UM.	Description
1	52.8231.0005	1	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
2	52.8271.0001	1	EA	FASTON RECEPT, 16-14 AWG (REEL)
3	73.3516.0504	3.5	IN	WIRE, 16 AWG 300V 105C PVC GRN/YEL UL1569

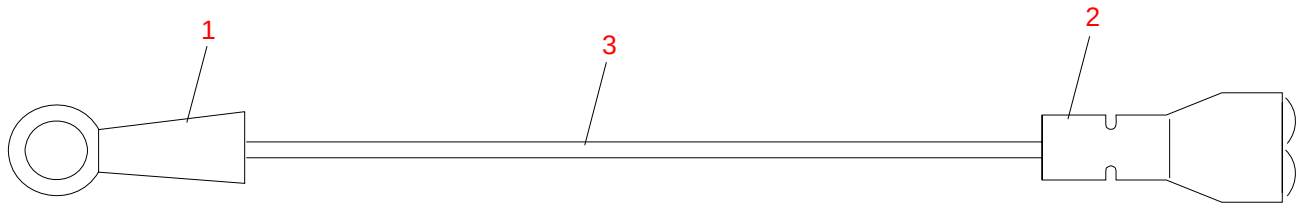


Figure 3-63: LVS Chassis Ground Cable Assembly

Chassis To Yoke Ground Cable Assembly

25.9661.1520 Rev C

Refer to Figure 3-64

No.	Item	Qty.	UM.	Description
1	52.8250.0006	2	EA	TERM, #8, RING, 10AWG
2	73.7089.0504	15.17	FT	WIRE, 22 AWG 300V 200C TEF GRN/YEL UL1180

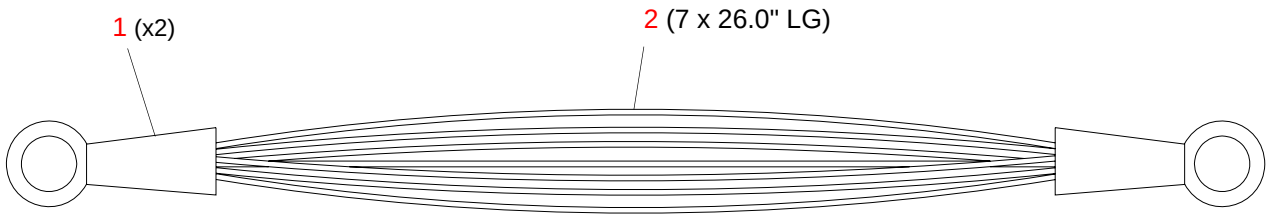


Figure 3-64: Chassis To Yoke Ground Cable Assembly

Head to Back Cap Ground Cable Assembly

25.9661.1522 Rev B

Refer to Figure 3-65.

No.	Item	Qty.	UM.	Description
1	52.8311.0003	2	EA	TERM, RING #6 14-16 AWG NON-INS. TAPE
2	73.7130.0001	1.33	FT	WIRE, 7/64" TUBULAR BRAID TINNED COPPER

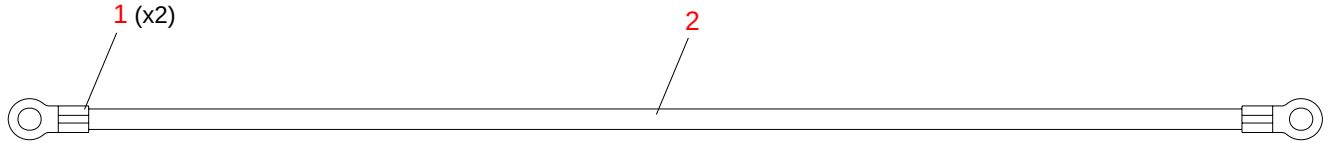


Figure 3-65: Head to Back Cap Ground Cable Assembly

Relay to Ignitor Cable Assembly

25.9661.1526 Rev C

Refer to Figure 3-66.

No.	Item	Qty.	UM.	Description
1	52.8231.0005	1	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG (changed 03-23-06)
2	52.8312.0001	1	EA	RECP, FASTON 1/4" 18-14 AWG INSULATED VO
3	73.7101.0009	0.42	FT	WIRE, 14 AWG 15KV 150C SILICONE 41/30 STRANDING

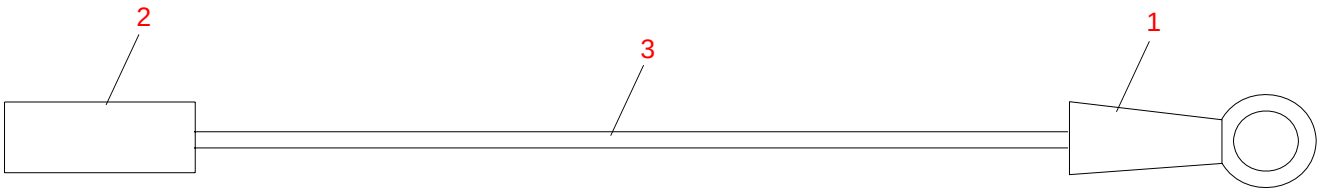


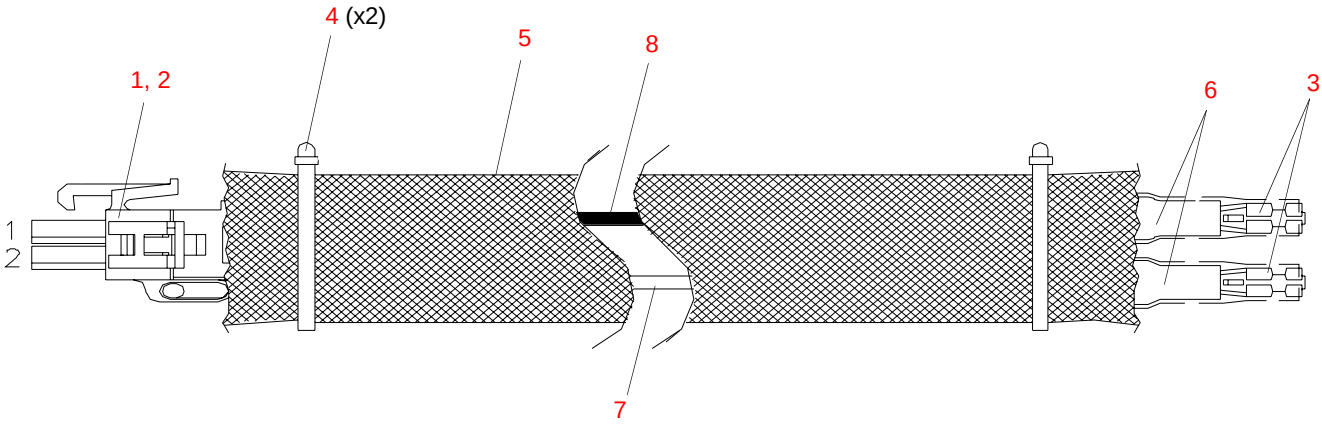
Figure 3-66: Ignitor to Relay Cable Assembly

Yoke to AC Fan Cable Assembly

25.9678.0012 Rev A

Refer to Figure 3-67

No.	Item	Qty.	UM.	Description
1	52.6665.0001	2	EA	CONTACT, 22-26AWG MALE MATE-N-LOK 2
2	52.6665.0002	1	EA	CONN, HOUSING 2 POS PLUG MATE-N-LOK 2
3	52.8413.0001	2	EA	RECEPT, FASTON .110 SERIES 22-18AWG INSULATED
4	55.2186.0002	2	EA	CABLE TIE, .09"WD 3.750"LG TEFZEL
5	55.2260.0208	2.58	FT	SLEEVING, FIBERGLASS 0.208 ID
6	55.2200.0003	0.25	FT	HEATSHRINK, 3/16" VITON
7	73.6222.0009	3.00	FT	WIRE, 22AWG 600V 200C TFE WHT UL1199 19STRAND
8	73.6222.0010	3.00	FT	WIRE, 22AWG 600V 200C TFE BLK UL1199



WIRE CHART				
FROM	CONN ITEM NO.	TO	CONN ITEM NO.	WIRE COLOR
PIN 1	2	SPADE	3	BLK
PIN 2	2	SPADE	3	WHT

Figure 3-67: Yoke To Fan AC Fan Cable Assembly

Backcap Interlok to Gobo Fan Interlok Cable Assembly

25.9678.0014 Rev B

Refer to Figure 3-68

No.	Item	Qty.	UM.	Description
1	52.8414.0001	2	EA	RECEPT, FASTON .187 SERIES 24-20 AWG UNINSUL
2	73.7089.0000	2.00	FT	WIRE. 22AWG 300V 200C TEF BLK UL1180

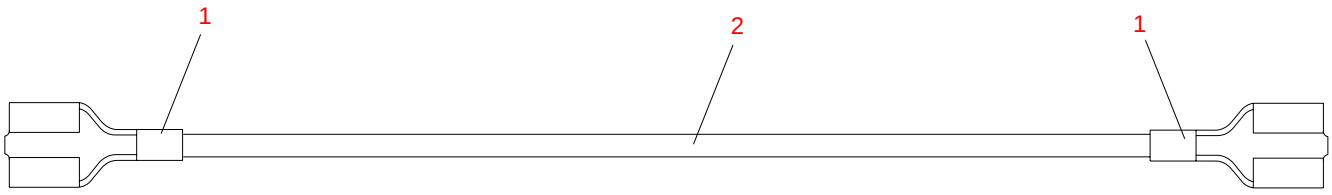


Figure 3-68: Backcap Interlok to Gobo Fan Interlok Cable Assembly

Air Duct OT Switch Cable Assembly

25.9678.0690 Rev 0 (VL3000Q)
25.9678.0691 Rev 0 (VL3000)

Refer to Figure 3-69

No.	Item	Qty.	UM.	Description
1	52.8237.0002	1	EA	TERM, RING #4 24-20AWG
2	52.8414.0001	1	EA	RECEPT, FASTON .187 SERIES, 24-20AWG UNISUL
3	55.2198.0002	.083	FT	HEATSHRINK, 1/8" BLACK
4	55.2260.0133	.375	FT	SLEEVING, FIBERGLASS, .133" ID
5	63.2047.5130	1	EA	THERMOSTAT, 130º TO-220 OPEN ON RISE (**VL3000 Only**)
	63.2047.5120	1	EA	THERMOSTAT, 120º TO-220 OPEN ON RISE (**VL3000Q Only**)
6	73.7089.0000	1.48	FT	WIRE, 22AWG BLK 300V 200C TEFLON STRANDED

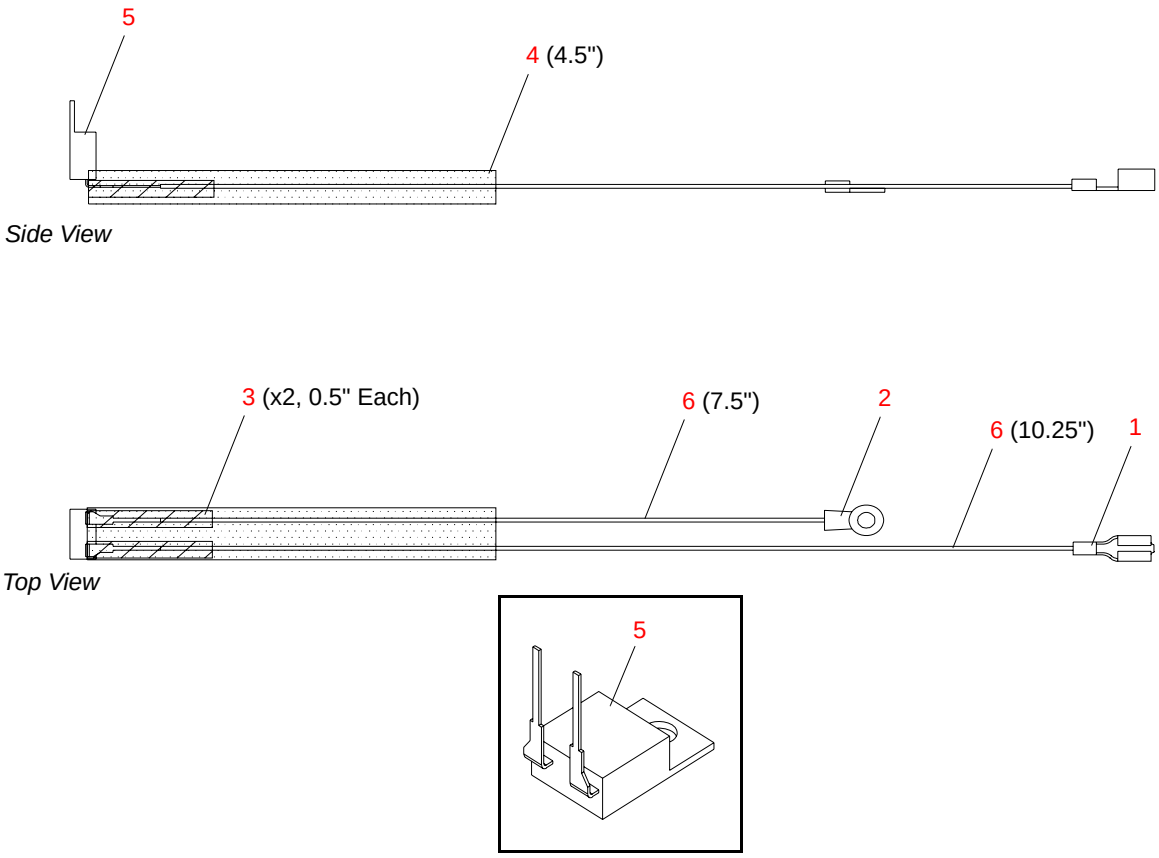


Figure 3-69: Air Duct OT Switch Cable Assembly

Relay to Gobo Fan Interlock Cable Assembly

25.9678.0675 Rev B

Refer to Figure 3-70.

No.	Item	Qty.	UM.	Description
1	52.8230.0003	1	EA	RECEPT, 1/4" FASTON 22-18AWG (TAPE MOUNT)
2	52.8414.0001	1	EA	RECEPT, FASTON 0.187 SERIES 24-20 AWG UNINSUL
3	73.7089.0000	2.00	FT	WIRE. 22AWG 300V 200C TEF BLK UL1180

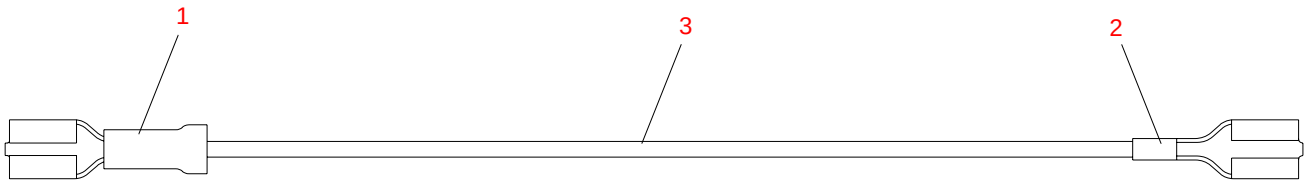


Figure 3-70: Relay to Gobo Fan Interlock Cable Assembly

Front Head Fans Cable Assembly

25.9678.0677 Rev B

Refer to Figure 3-71

No.	Item	Qty.	UM.	Description
1	52.6396.3104	1	EA	RECEPT, 4POS MTA100 W/POL TAB BLU CLSD END (changed 05-03-06)
2	52.6524.0002	2	EA	CONN, HOUSING 2POS RECEPTACLE
3	52.8346.0001	4	EA	CONTACT, 24-30AWG FEMALE CRIMP
4	73.5126.0002	2.67	FT	WIRE, 26AWG 2COND 300V 80C <BLK-RED>

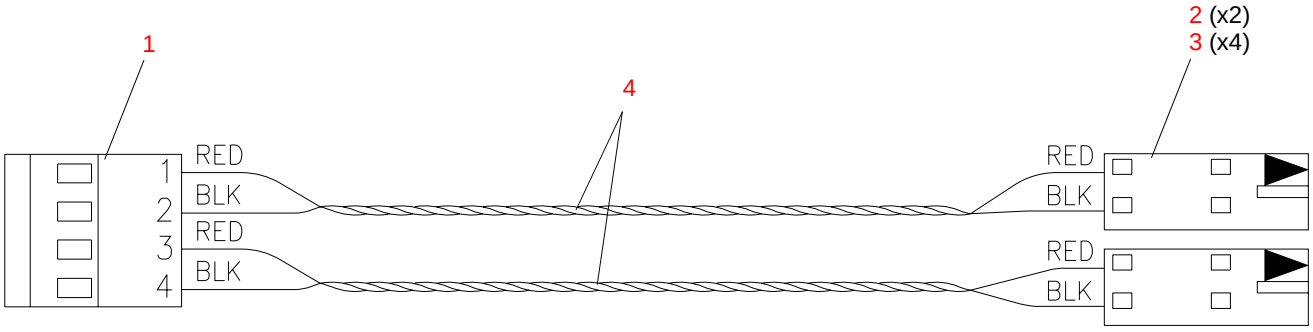


Figure 3-71: Front Head Fans Cable Assembly

Yoke Fan and Relay Cable Assembly

25.9678.0681 Rev C

Refer to Figure 3-72

No.	Item	Qty.	UM.	Description
1	52.6396.3103	1	EA	RECEPT, 3 POS MTA100 W/ POL TAB BLU CLSD END (changed 05-01-06)
2	52.6423.0003	1	EA	HOUSING, 3 POS MT RECEPT, 2MM
3	52.8230.0003	1	EA	RECEPT, 1/4" FASTON 22-18AWG
4	73.3526.0002	1.25	FT	WIRE, 26AWG 300V 105C PVC RED
5	73.5126.0002	1.50	FT	WIRE, 26AWG 2 COND 300V 80C <RED-BLK>

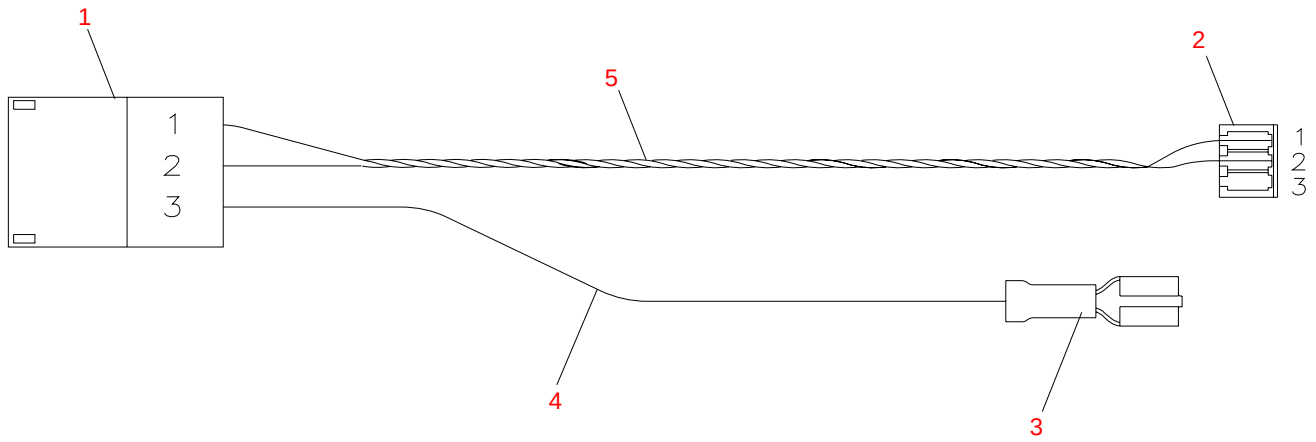


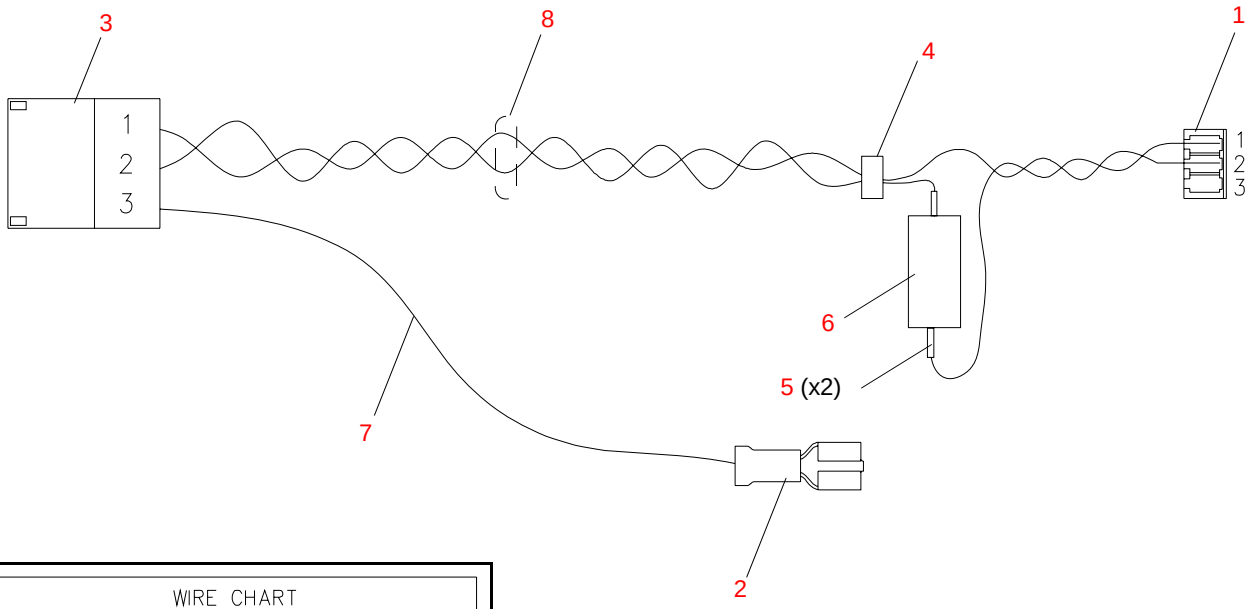
Figure 3-72: Yoke Fan and Relay Cable Assembly

Yoke Fan and Relay Cable Assembly - VL3000Q

25.9678.0781 Rev A

Refer to Figure 3-72

No.	Item	Qty.	UM.	Description
1	52.6423.0003	1	EA	HOUSING, 3 POS MT RECEPT, 2MM
2	52.8230.0003	1	EA	RECEPT, 1/4" FASTON 22-18AWG
3	52.6396.3103	1	EA	RECEPT, 3 POS MTA100 W/ POL TAB BLU CLSD END
4	55.2186.0001	1	EA	CABLE TIE, .10 X 4" SMALL
5	55.2268.0125	1	IN	HEATSHRINK, 1/8" CLEAR KYNAR UL 600V 150^{O} C
6	60.7440.2002	1	EA	RESISITOR, 5W, 5% 200 OHM WIREWOUND
7	73.3526.0002	1.25	FT	WIRE, 26AWG 300V 105C PVC RED
8	73.5126.0002	1.50	FT	WIRE, 26AWG 2 COND 300V 80C <RED-BLK>



WIRE CHART				
FROM	CONN ITEM NO.	TO	CONN ITEM NO.	WIRE COLOR
PIN 1	3	PIN 1	1	RED
PIN 2	3	PIN 2	1	BLK
PIN 3	3	FASTON	2	RED

Figure 3-73: Yoke Fan and Relay Cable Assembly

OT Switch to Interlok Cable Assembly

25.9678.0682 Rev C

Refer to Figure 3-74

No.	Item	Qty.	UM.	Description
1	52.8371.0001	1	EA	RECEPT, FASTON 24-20AWG UNISUL TIN PLT BRS .250 X .032 TAB
2	52.8414.0001	1	EA	RECEPT, FASTON, 0.187 SERIES 24-20 AWG UNISUL
3	73.7089.0000	0.79	FT	WIRE, 22AWG 300V 200C TEF BLK UL1180

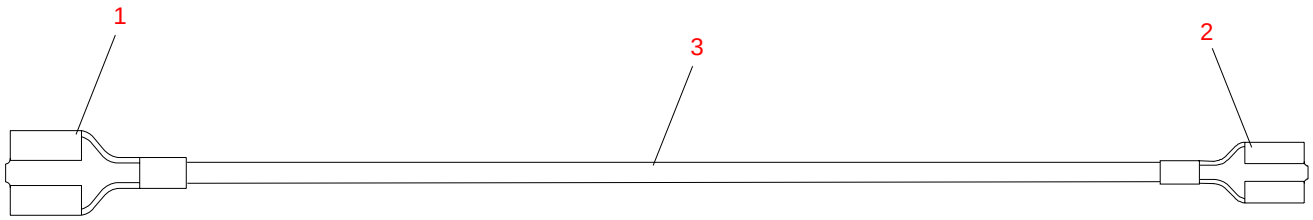


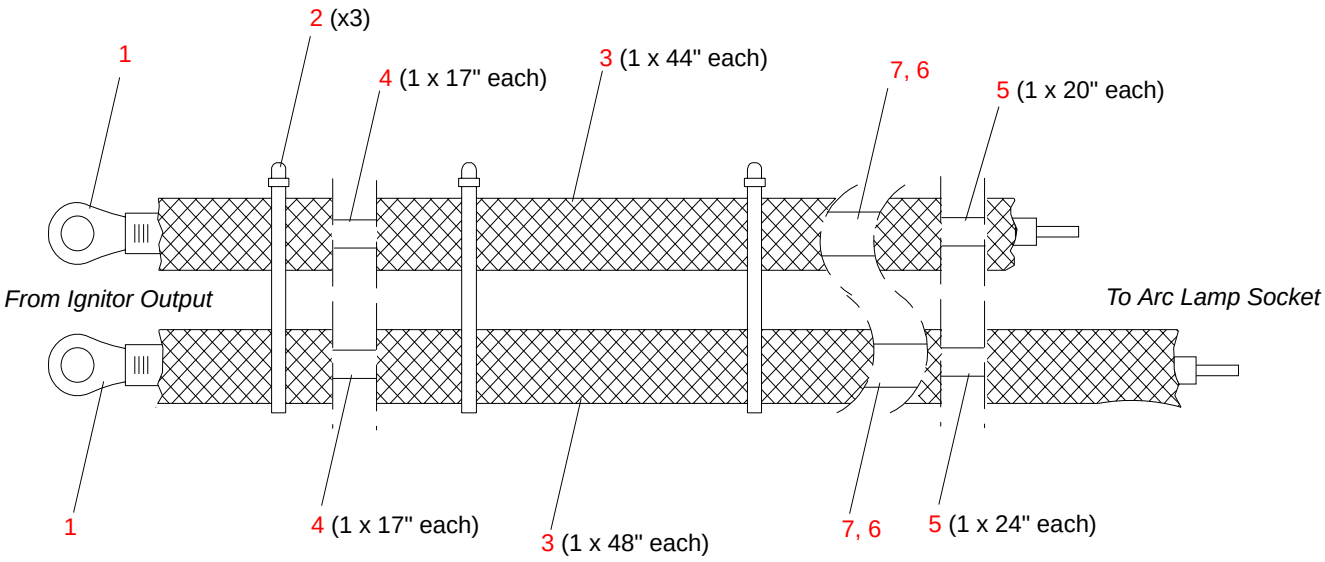
Figure 3-74: OT Switch to Interlok Cable Assembly

Ignitor to Lamp Socket Cable Assembly

25.9678.0789 Rev B

Refer to Figure 3-75.

No.	Item	Qty.	UM.	Description
1	52.8231.0005	2	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
2	55.2186.0001	3	EA	CABLE TIE, .10"WD 4.00"LG SMALL
3	55.2260.0133	6.83	FT	SLEEVING, FIBERGLASS .133" ID
4	73.7100.0001	2.84	FT	WIRE, 16AWG 20KVDC 41/32 STRD 200C SILICONE 2 X 17"
5	73.7190.0001	3.66	FT	WIRE, 250 DEG C
6	55.2200.0003	.33	FT	HEAT SHRINK TUBING 2 X 2"
7	52.8274.1614	2	EA	CONN, BUTT SPLICE, 16-14 PIDG



Note: Some material removed to show wire detail.

Figure 3-75: Ignitor to Lamp Socket Cable Assembly

Head Controller Cable Assembly

25.9678.0715 Rev C

Refer to Figure 3-76

No.	Item	Qty.	UM.	Description
1	52.6224.1014	2	EA	COVER, FRONT 14 POS MT LATCHING
2	52.6224.1040	2	EA	COVER, FRONT 40 POS MT LATCHING
3	52.6224.1050	2	EA	COVER, FRONT 50 POS MT LATCHING
4	52.6224.2014	2	EA	COVER, BACK 14 POS MT
5	52.6224.2040	2	EA	COVER, BACK 40 POS MT
6	52.6224.2050	2	EA	COVER, BACK 50 POS MT
7	52.6610.0014	2	EA	CONN, HOUSING, 14 POS 26-22 AWG DBL ROW UNLOADED (changed 05-01-06)
8	52.6610.0017	2	EA	CONN, HOUSING, 50 POS 26-22 AWG DBL ROW UNLOADED (changed 05-01-06)
9	52.6610.0040	2	EA	CONN, HOUSING, 40 POS 26-22 AWG DBL ROW UNLOADED (changed 05-01-06)
10	52.8351.0004	180	EA	CONTACT, 26-22 AWG RECP MTE (REEL) (added 05-01-06)
11	55.2186.0001	11	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
12	55.6699.0004	1.75	FT	SLEEVING, 3/4" NOM.DIA. POLY EXP BRAIDED
13	73.3026.0009	1.83	FT	WIRE, 26 AWG 300V 80C <WHT>
14	73.5116.0123	35.17	FT	WIRE, 24 AWG 4COND TW 300V 80C <BLK-BRN-RED-ORG> UL1061
15	73.5126.0002	6.00	FT	WIRE, 26 AWG 2 COND TWISTED <RED-BLK>
16	73.5126.0007	1.83	FT	WIRE, 26 AWG 2 COND 300V 80C UL1061 19 STRND <VIO-BLK>
17	73.5126.6009	2.33	FT	WIRE, 26 AWG 6 COND TWISTED <WHT-WHT/BLU-WHT/BLK-WHT/ BRN-WHT/GRN-WHT/RED>
18	73.5126.7009	1.83	FT	WIRE, 26 AWG 7 COND TWISTED <WHT-WHT/BLU-WHT/BLK-WHT/ BRN-WHT/GRN-WHT/RED-WHT/VIO>

Head Controller Cable Assembly (continued)

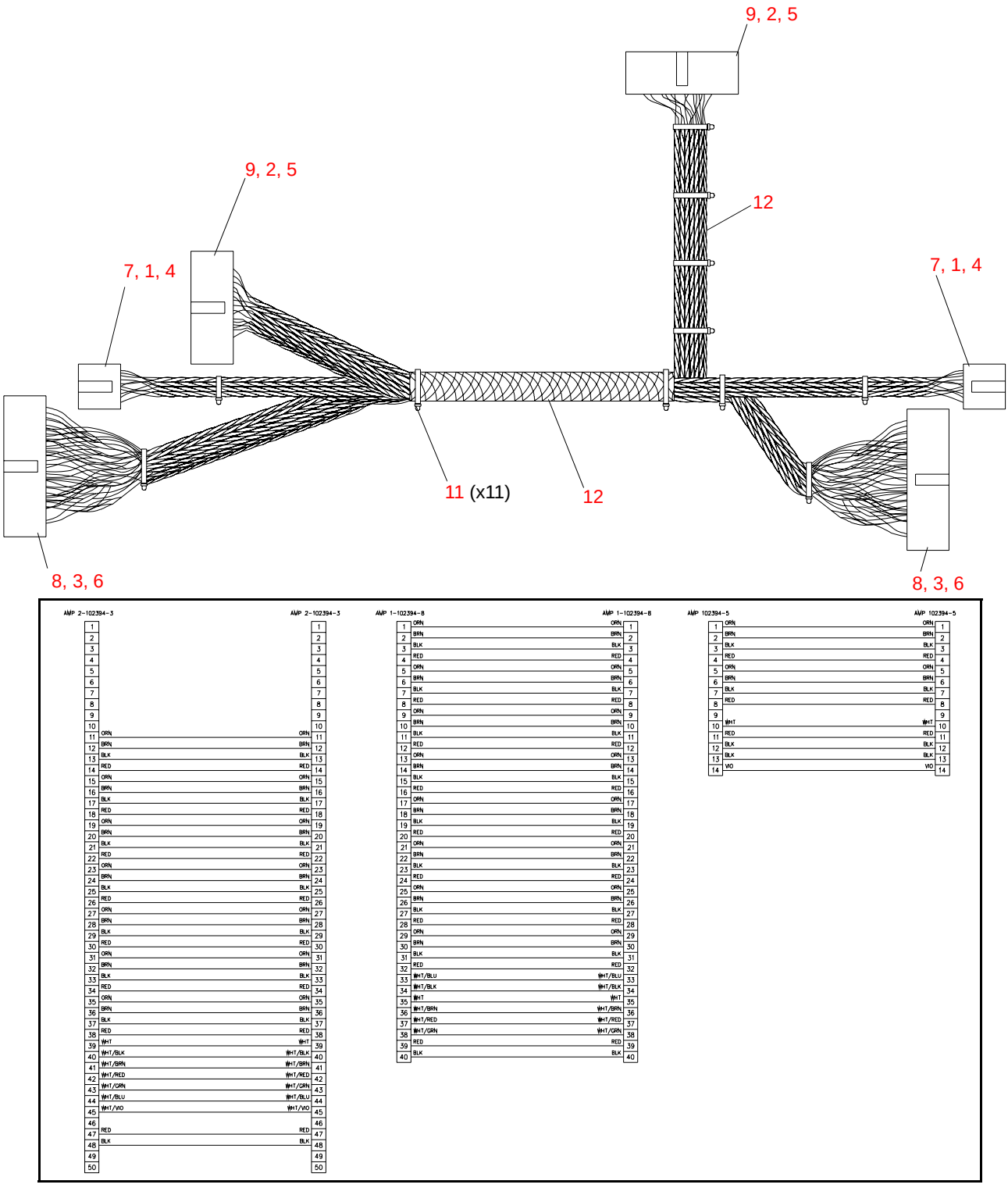


Figure 3-76: Head Controller Cable Assembly

Color Interconnect PCB/Cable Assembly

25.9678.1409 Rev 0 (VL3000 Only)

Refer to Figure 3-77 and Figure 3-78

No.	Item	Qty.	UM.	Description
1	24.9678.1409	1	EA	PCB ASSY, COLOR INTERCONNECT
2	28.9678.1409	1	EA	WIRE KIT, COLOR INTERCONNECT
-	- 04.9678.0409.00	1	EA	LABEL SET, COLOR HARNESS
-	- 11.9678.0409	1	EA	PCB, COLOR INTERCONNECT
-	- 52.6467.0003	1	EA	CONN, FEM PLUG 3POS 30-24 AWG
-	- 52.6467.0005	1	EA	CONN, FEM PLUG 5POS 30-24AWG
-	- 52.6467.0007	1	EA	CONN, FEM PLUG 7POS 30-24AWG
-	- 52.6467.0024	1	EA	CONTACT, SOCKET 30-24AWG CRIMP
-	- 52.6661.0006	1	EA	CONN, RECEPT 6CIR WIRE TO
-	- 52.6467.0011	5	EA	CONN, FEM PLUG 11 POS 30-24AWG
-	- 52.8387.0001	3	EA	CONTACT, 26-28AWG FEMALE CRIM
-	- 55.2186.0002	20	EA	CABLE TIE, .09"WD 3.750"LG TEF
-	- 73.2326.0123	17.34	FT	WIRE, 26AWG 4COND 300V200C TEF
-	- 73.2326.7001	2.01	FT	WIRE, 26AWG 7COND 300V 200C TE
-	- 73.2326.5001	1.3	FT	WIRE, 26AWG 5COND 300V 200C TE
-	- 73.2326.3003	1.04	FT	WIRE, 26AWG 3COND 300V 200C TEF

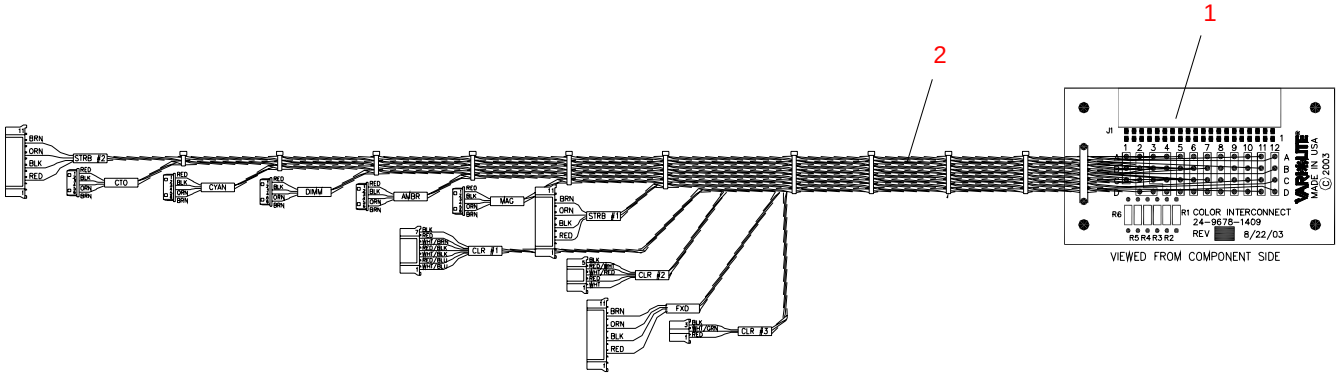
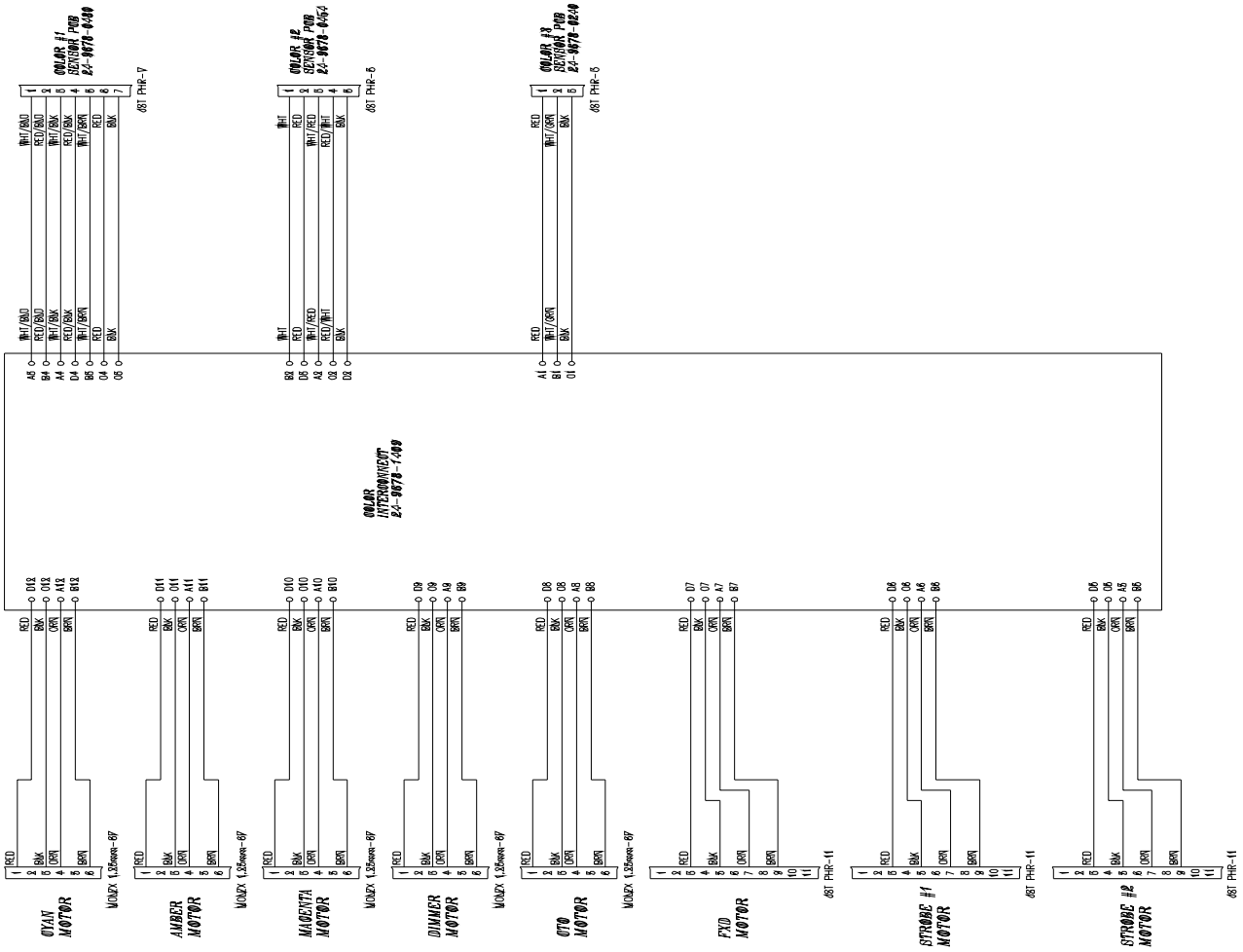


Figure 3-77: Color Interconnect PCB/Cable Assembly - VL3000 Only

Color Interconnect PCB/Cable Assembly (continued)



WIRE CHART						
FROM	TO	CONN ITEM NO.	WIRE COLOR	WIRE ITEM NO.	FUNCTION
A12	PWR 4	8	ORN	10	OVAN MOTOR - 2A
B12	PWR 8	8	BRN	10	OVAN MOTOR - 2B
C12	PWR 5	8	BLK	10	OVAN MOTOR - 1B
D12	PWR 1	8	RED	10	OVAN MOTOR - 1A
A11	PWR 4	6	ORN	10	AMBER MOTOR - 2A
B11	PWR 8	6	BRN	10	AMBER MOTOR - 2B
C11	PWR 5	6	BLK	10	AMBER MOTOR - 1B
D11	PWR 1	6	RED	10	AMBER MOTOR - 1A
A10	PWR 4	6	ORN	10	MAGENTA MOTOR - 2A
B10	PWR 8	6	BRN	10	MAGENTA MOTOR - 2B
C10	PWR 5	6	BLK	10	MAGENTA MOTOR - 1B
D10	PWR 1	6	RED	10	MAGENTA MOTOR - 1A
A9	PWR 4	6	ORN	10	DIMMER MOTOR - 2A
B9	PWR 8	6	BRN	10	DIMMER MOTOR - 2B
C9	PWR 5	6	BLK	10	DIMMER MOTOR - 1B
D9	PWR 1	6	RED	10	DIMMER MOTOR - 1A
A8	PWR 4	6	ORN	10	CTO MOTOR - 2A
B8	PWR 8	6	BRN	10	CTO MOTOR - 2B
C8	PWR 5	6	BLK	10	CTO MOTOR - 1B
D8	PWR 1	6	RED	10	CTO MOTOR - 1A
A7	PWR 7	7	ORN	10	FXD MOTOR - 2A
B7	PWR 9	7	BRN	10	FXD MOTOR - 2B
C7	PWR 5	7	BLK	10	FXD MOTOR - 1B
D7	PWR 5	7	RED	10	FXD MOTOR - 1A
A6	PWR 7	7	ORN	10	STROBE #1 MOTOR - 2A
B6	PWR 9	7	BRN	10	STROBE #1 MOTOR - 2B
C6	PWR 5	7	BLK	10	STROBE #1 MOTOR - 1B
D6	PWR 5	7	RED	10	STROBE #1 MOTOR - 1A
A5	PWR 7	7	ORN	10	STROBE #2 MOTOR - 2A
B5	PWR 9	7	BRN	10	STROBE #2 MOTOR - 2B
C5	PWR 5	7	BLK	10	STROBE #2 MOTOR - 1B
D5	PWR 5	7	RED	10	STROBE #2 MOTOR - 1A
A5	PWR 1	4	WHT/BLU	11	STROBE - OVAN
A4	PWR 5	4	WHT/BLK	11	STROBE - DIMMER
B5	PWR 5	4	WHT/BRN	11	STROBE - CTO
B4	PWR 2	4	RED/BLU	11	TOOL_R - OVAN
C5	PWR 7	4	BLK	11	GND - COLOR #1
C4	PWR 8	4	RED	11	TOOL_R - CTO
D4	PWR 4	4	RED/BLK	11	TOOL_R - DIMMER
A3	PWR 5	5	WHT/RED	12	STROBE - MAGENTA
B3	PWR 1	5	WHT	12	STROBE - AMBER
C3	PWR 4	5	RED/WHT	12	TOOL_R - MAGENTA
C3	PWR 8	5	BLK	12	GND - COLOR #2
D5	PWR 2	5	RED	12	TOOL_R - AMBER
A1	PWR 1	9	RED	15	TOOL_R - FXD
B1	PWR 2	9	WHT/GRN	15	STROBE - FXD
C1	PWR 5	9	BLK	15	GND - COLOR #3

Figure 3-78: Color Interconnect PCB Assembly Wire Chart - VL3000 Only

Color Interconnect (Quiet) PCB/Cable Assembly

25.9678.1419 Rev A (VL3000Q Only)

Refer to Figure 3-79 and Figure 3-80

No.	Item	Qty.	UM.	Description
1	24.9678.1419	1	EA	PCB ASSY, COLOR INTERCONNECT
2	28.9678.1419	1	EA	WIRE KIT, COLOR INTERCONNECT
-	- 04.9678.0409.00	1	EA	LABEL SET, COLOR HARNESS
-	- 11.9678.0409	1	EA	PCB, COLOR INTERCONNECT
-	- 52.6467.0003	1	EA	CONN, FEM PLUG 3POS 30-24 AWG
-	- 52.6467.0005	1	EA	CONN, FEM PLUG 5POS 30-24AWG
-	- 52.6467.0007	1	EA	CONN, FEM PLUG 7POS 30-24AWG
-	- 52.6467.0024	19	EA	CONTACT, SOCKET 30-24AWG CRIMP
-	- 52.6661.0006	5	EA	CONN, RECEPT 6CIR WIRE TO
-	- 52.6467.0011	1	EA	CONN, FEM PLUG 11 POS 30-24AWG
	- 52.6523.0004	2	EA	CONN., HOUSING 4 POS PLUG
	- 52.8347.0001	8	EA	CONTACT, 24-30AWG MALE CRIMP
-	- 52.8387.0001	20	EA	CONTACT, 26-28AWG FEMALE CRIM
-	- 55.2186.0002	11	EA	CABLE TIE, .09"WD 3.750"LG TEF
-	- 73.2326.0123	17.34	FT	WIRE, 26AWG 4COND 300V200C TEF
-	- 73.2326.7001	2.01	FT	WIRE, 26AWG 7COND 300V 200C TE
-	- 73.2326.5001	1.30	FT	WIRE, 26AWG 5COND 300V 200C TE
-	- 73.2326.3003	1.04	FT	WIRE, 26AWG 3COND 300V 200C TEF

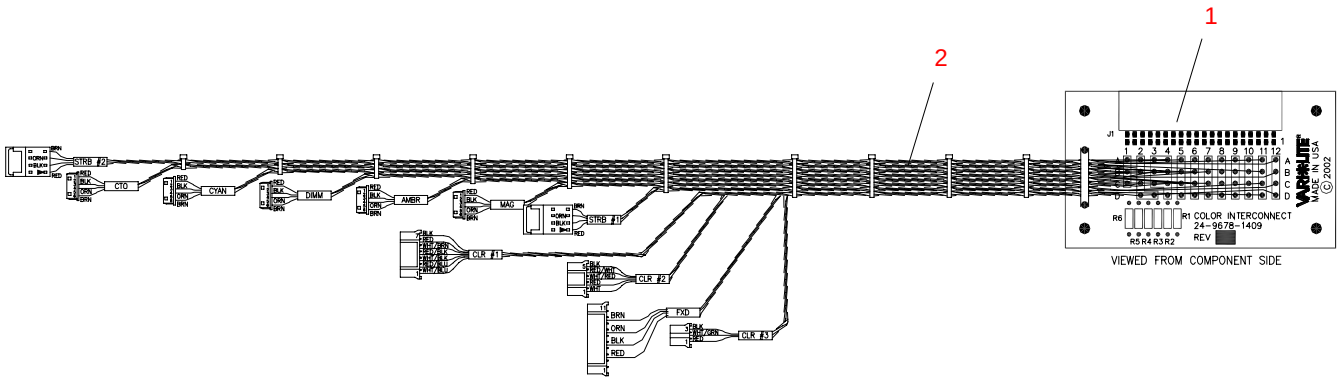
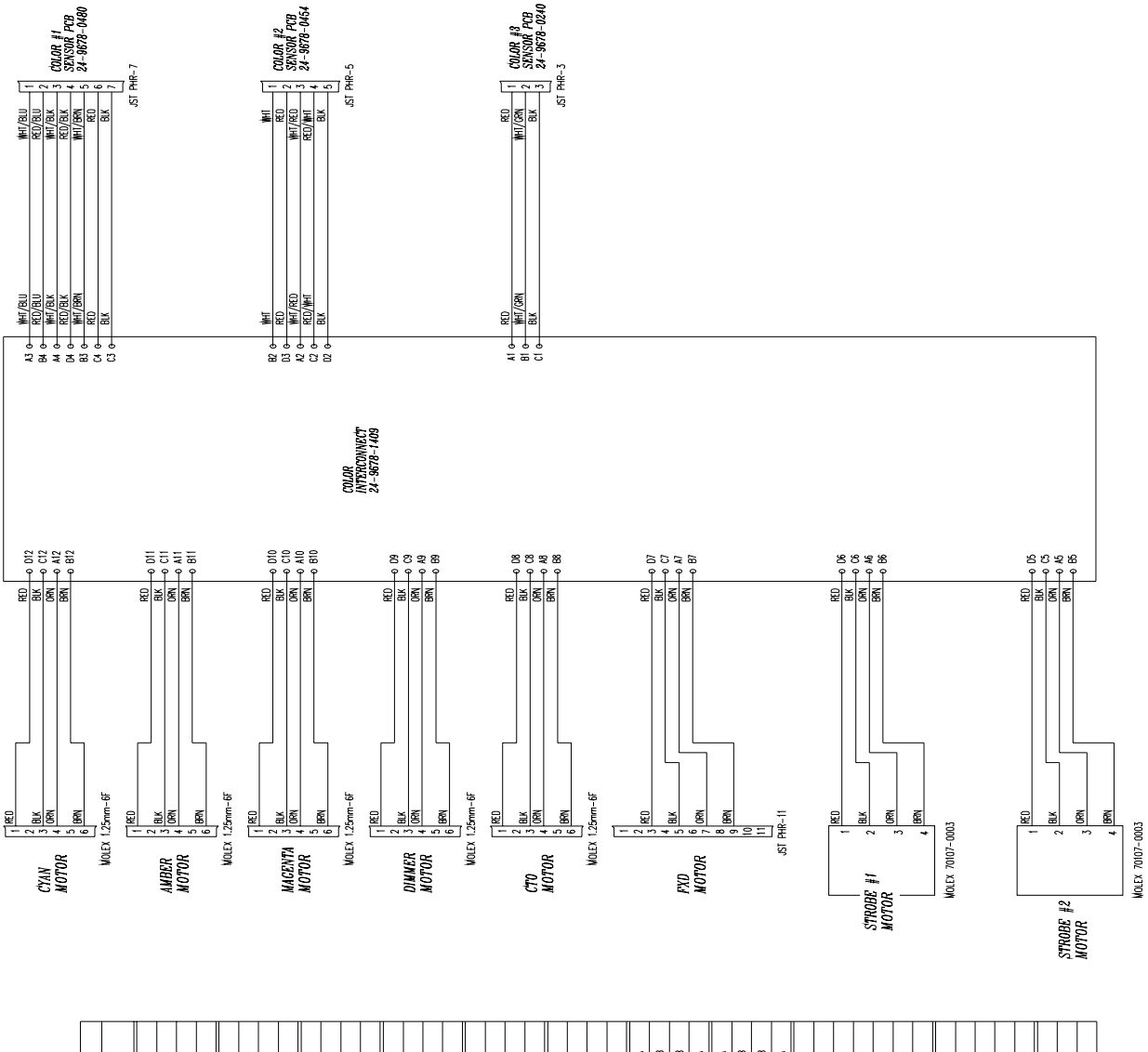


Figure 3-79: Color Interconnect PCB/Cable Assembly - VL3500Q Only

Color Interconnect PCB/Cable Assembly (continued)



WIRE CHART					
FROM	TO	CONN ITEM NO.	WIRE COLOR	WIRE ITEM NO.	FUNCTION
A12	PIN 4	6	ORN	10	CYAN MOTOR - 2A
B12	PIN 6	6	BRN	10	CYAN MOTOR - 2B
C12	PIN 3	6	BLK	10	CYAN MOTOR - 1B
D12	PIN 1	6	RED	10	CYAN MOTOR - 1A
A11	PIN 4	6	ORN	10	AMBER MOTOR - 2A
B11	PIN 6	6	BRN	10	AMBER MOTOR - 2B
C11	PIN 3	6	BLK	10	AMBER MOTOR - 1B
D11	PIN 1	6	RED	10	AMBER MOTOR - 1A
A10	PIN 4	6	ORN	10	MAGENTA MOTOR - 2A
B10	PIN 6	6	BRN	10	MAGENTA MOTOR - 2B
C10	PIN 3	6	BLK	10	MAGENTA MOTOR - 1B
D10	PIN 1	6	RED	10	MAGENTA MOTOR - 1A
A9	PIN 4	6	ORN	10	DIMMER MOTOR - 2A
B9	PIN 6	6	BRN	10	DIMMER MOTOR - 2B
C9	PIN 3	6	BLK	10	DIMMER MOTOR - 1B
D9	PIN 1	6	RED	10	DIMMER MOTOR - 1A
A8	PIN 4	6	ORN	10	CTO MOTOR - 2A
B8	PIN 6	6	BRN	10	CTO MOTOR - 2B
C8	PIN 3	6	BLK	10	CTO MOTOR - 1B
D8	PIN 1	6	RED	10	CTO MOTOR - 1A
A7	PIN 7	7	ORN	10	FXD MOTOR - 2A
B7	PIN 9	7	BRN	10	FXD MOTOR - 2B
C7	PIN 5	7	BLK	10	FXD MOTOR - 1B
D7	PIN 3	7	RED	10	FXD MOTOR - 1A
A6	PIN 7	7	ORN	10	STROBE #1 MOTOR - 2A
B6	PIN 9	7	BRN	10	STROBE #1 MOTOR - 2B
C6	PIN 5	7	BLK	10	STROBE #1 MOTOR - 1B
D6	PIN 3	7	RED	10	STROBE #1 MOTOR - 1A
A5	PIN 7	7	ORN	10	STROBE #2 MOTOR - 2A
B5	PIN 9	7	BRN	10	STROBE #2 MOTOR - 2B
C5	PIN 5	7	BLK	10	STROBE #2 MOTOR - 1B
D5	PIN 3	7	RED	10	STROBE #2 MOTOR - 1A
A3	PIN 1	4	WHT/BLU	11	SENSE - CYAN
A4	PIN 3	4	WHT/BLK	11	SENSE - DIMMER
B3	PIN 5	4	WHT/BRN	11	SENSE - CTO
B4	PIN 2	4	RED/BLU	11	VCC_R - CYAN
C3	PIN 7	4	BLK	11	GND - COLOR #1
C4	PIN 6	4	RED	11	VCC_R - CTO
D4	PIN 4	4	RED/BLK	11	VCC_R - DIMMER
A2	PIN 3	3	WHT/RED	12	SENSE - MAGENTA
B2	PIN 1	3	WHT	12	SENSE - AMBER
C2	PIN 4	3	RED/WHT	12	VCC_R - MAGENTA
D2	PIN 5	3	BLK	12	GND - COLOR #2
D3	PIN 2	3	RED	12	VCC_R - AMBER
A1	PIN 1	2	RED	13	VCC_R - FXD
B1	PIN 2	2	WHT/ORN	13	SENSE - FXD
C1	PIN 3	2	BLK	13	GND - COLOR #3

Figure 3-80: Color Interconnect PCB Assembly Wire Chart - VL3000Q Only

Gobo Interconnect PCB/Cable Assembly

25.9678.2209 Rev 0

Refer to Figure 3-81.

Note: This cable must be ordered as an assembly.

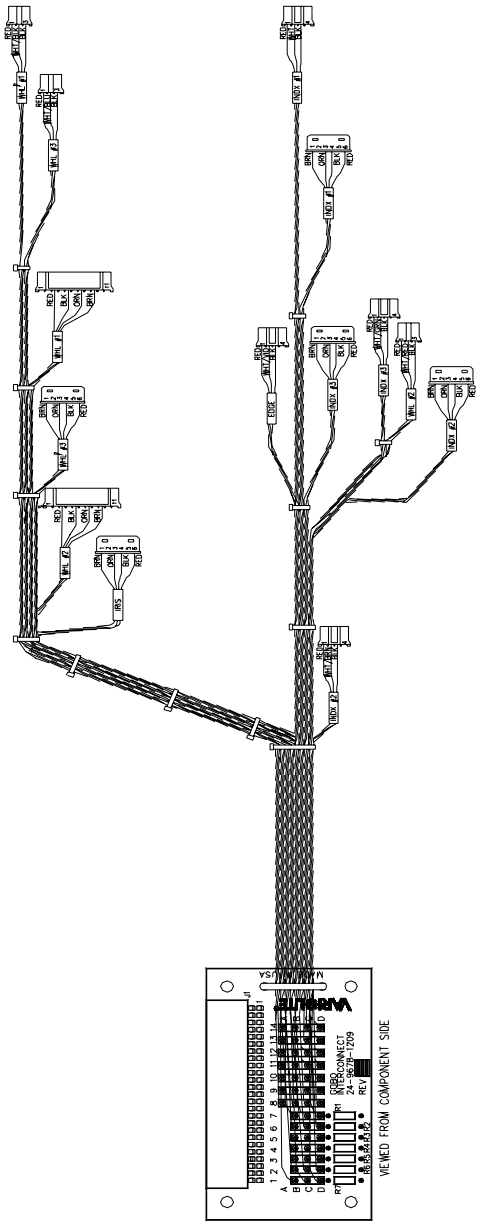
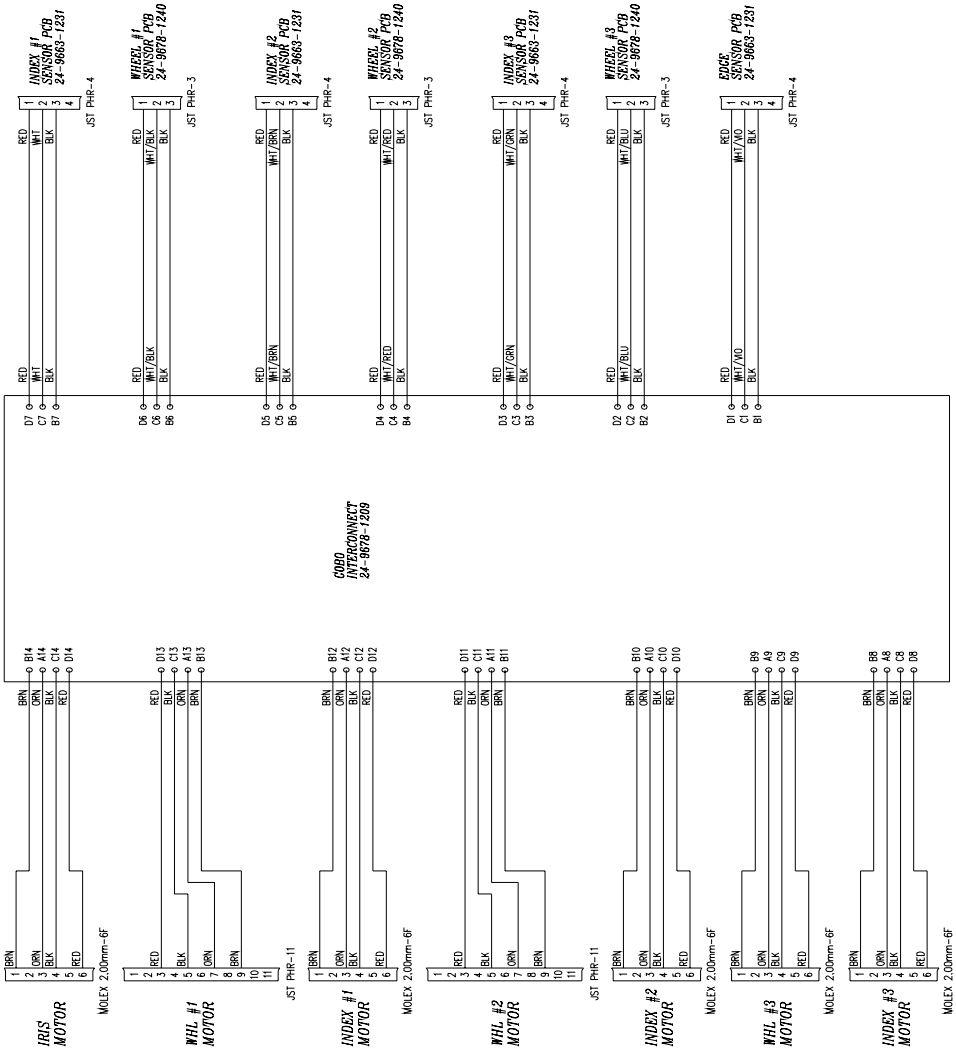


Figure 3-81: Gobo Interconnect PCB/Cable Assembly

Gobo Interconnect PCB/Cable Assembly (continued)



WIRE CHART					
FROM	TO	CONN ITEM NO.	WIRE COLOR	WIRE ITEM NO.	FUNCTION
A14	PIN 3	5	ORN	8	IRIS MOTOR - 2A
B14	PIN 1	5	BRN	8	IRIS MOTOR - 2B
C14	PIN 4	5	BLK	8	IRIS MOTOR - 1B
D14	PIN 6	5	RED	8	IRIS MOTOR - 1A
A13	PIN 7	16	ORN	8	WHEEL #1 MOTOR - 2A
B13	PIN 9	16	BRN	8	WHEEL #1 MOTOR - 2B
C13	PIN 5	16	BLK	8	WHEEL #1 MOTOR - 1B
D13	PIN 3	16	RED	8	WHEEL #1 MOTOR - 1A
A12	PIN 3	5	ORN	8	INDEX #1 MOTOR - 2A
B12	PIN 1	5	BRN	8	INDEX #1 MOTOR - 2B
C12	PIN 4	5	BLK	8	INDEX #1 MOTOR - 1B
D12	PIN 6	5	RED	8	INDEX #1 MOTOR - 1A
A11	PIN 7	16	ORN	8	WHEEL #2 MOTOR - 2A
B11	PIN 9	16	BRN	8	WHEEL #2 MOTOR - 2B
C11	PIN 5	16	BLK	8	WHEEL #2 MOTOR - 1B
D11	PIN 3	16	RED	8	WHEEL #2 MOTOR - 1A
A10	PIN 3	5	ORN	8	INDEX #2 MOTOR - 2A
B10	PIN 1	5	BRN	8	INDEX #2 MOTOR - 2B
C10	PIN 4	5	BLK	8	INDEX #2 MOTOR - 1B
D10	PIN 6	5	RED	8	INDEX #2 MOTOR - 1A
A9	PIN 3	5	ORN	8	WHEEL #3 MOTOR - 2A
B9	PIN 1	5	BRN	8	WHEEL #3 MOTOR - 2B
C9	PIN 4	5	BLK	8	WHEEL #3 MOTOR - 1B
D9	PIN 6	5	RED	8	WHEEL #3 MOTOR - 1A
A8	PIN 3	5	ORN	8	INDEX #3 MOTOR - 2A
B8	PIN 1	5	BRN	8	INDEX #3 MOTOR - 2B
C8	PIN 4	5	BLK	8	INDEX #3 MOTOR - 1B
D8	PIN 6	5	RED	8	INDEX #3 MOTOR - 1A
B7	PIN 3	3	BLK	9	GND - INDEX #1 SENSOR
C7	PIN 2	3	WHT	9	SENSE - INDEX #1 SENSOR
D7	PIN 1	3	RED	9	VCC_R - INDEX #1 SENSOR
B6	PIN 3	2	BLK	11	GND - WHEEL #1 SENSOR
C6	PIN 2	2	WHT/BLK	11	SENSE - WHEEL #1 SENSOR
D6	PIN 1	2	RED	11	VCC_R - WHEEL #1 SENSOR
B5	PIN 3	3	BLK	12	GND - INDEX #2 SENSOR
C5	PIN 2	3	WHT/BRN	12	SENSE - INDEX #2 SENSOR
D5	PIN 1	3	RED	12	VCC_R - INDEX #2 SENSOR
B4	PIN 3	2	BLK	10	GND - WHEEL #2 SENSOR
C4	PIN 2	2	WHT/RED	10	SENSE - WHEEL #2 SENSOR
D4	PIN 1	2	RED	10	VCC_R - WHEEL #2 SENSOR
B3	PIN 3	3	BLK	13	GND - INDEX #3 SENSOR
C3	PIN 2	3	WHT/GRN	13	SENSE - INDEX #3 SENSOR
D3	PIN 1	3	RED	13	VCC_R - INDEX #3 SENSOR
B2	PIN 3	2	BLK	14	GND - WHEEL #3 SENSOR
C2	PIN 2	2	WHT/BLU	14	SENSE - WHEEL #3 SENSOR
D2	PIN 1	2	RED	14	VCC_R - WHEEL #3 SENSOR
B1	PIN 3	3	BLK	15	GND - EDGE SENSOR
C1	PIN 2	3	WHT/WO	15	SENSE - EDGE SENSOR
D1	PIN 1	3	RED	15	VCC_R - EDGE SENSOR

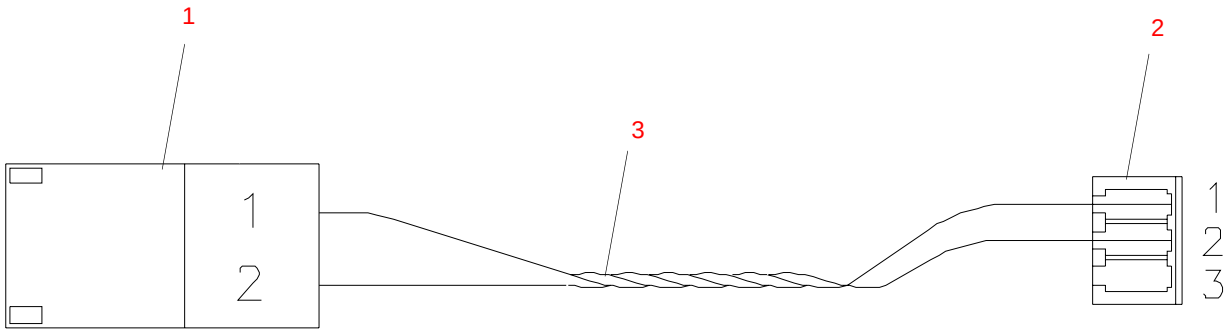
Figure 3-82: Gobo Interconnect PCB/Cable Assembly

Yoke Fan Cable Assembly

25.9678.0758 Rev A

Refer to Figure 3-83

No.	Item	Qty.	UM.	Description
1	52.6396.3102	1	EA	RECEPT, 2 POS MTA100 W/POL TAB BLUE CLSD END (changed 05-02-06)
2	52.6423.0003	1	EA	HOUSING, 3POS MT RECEPT, 2MM CT 28-26 AWG
3	73.5126.0002	0.50	FT	WIRE, 26AWG 2COND 300V 80C <BLK-RED> UL1061, 19STRND



WIRE CHART				
FROM	CONN ITEM NO.	TO	CONN ITEM NO.	WIRE COLOR
PIN 1	2	PIN 1	1	RED
PIN 2	2	PIN 2	1	BLK

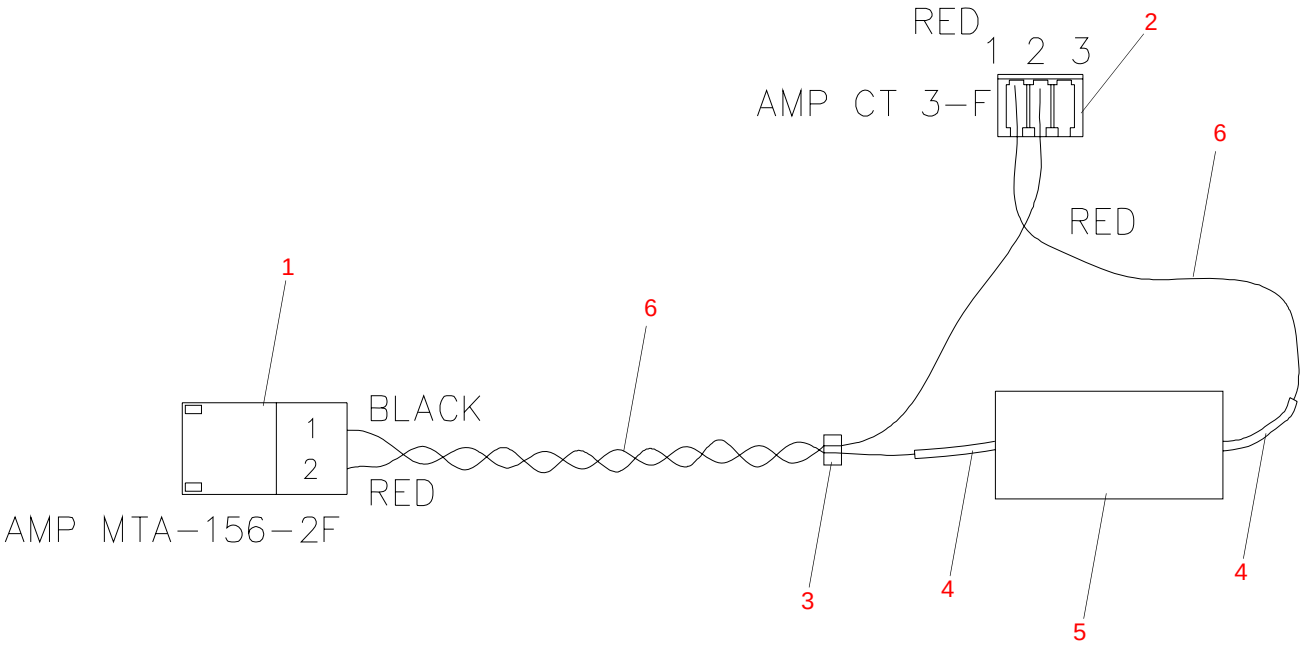
Figure 3-83: Yoke Fan Cable Assembly

Yoke Fan Cable Assembly - VL3000Q

25.9678.0759 Rev A

Refer to Figure 3-83

No.	Item	Qty.	UM.	Description
1	52.6396.3102	1	EA	RECEPT, 2 POS MTA100 W/POL TAB BLUE CLSD END
2	52.6423.0003	1	EA	HOUSING, 3 POS MT RECEPT, 2MM CT 28-26 AWG
3	55.2186.0001	1	EA	CABLE TIE, .10 X 4" SMALL
4	55.2268.0125	1	EA	HEASTRINK, 1/8" CLEAR KYNAR UL 600V 150^{O} C
5	60.7440.2002	1	EA	RESISTOR, 5W, 5% 200 OHM WIREWOUND
6	73.5126.0002	.5	FT	WIRE, 26AWG 2COND 300V 80C <BLK-RED> UL1061, 19STRND



WIRE CHART				
FROM	CONN ITEM NO.	TO	CONN ITEM NO.	WIRE COLOR
PIN 1	2	PIN 1	1	RED
PIN 2	2	PIN 2	1	BLK

Figure 3-84: Yoke Fan Cable Assembly

EMI Filter to Power Switch Cable Assembly

25.9678.0811 Rev C

Refer to Figure 3-85

No.	Item	Qty.	UM.	Description
1	52.8313.0001	2	EA	RCPT, FASTON 1/4" 18-14 AWG FLAG DBL CRP (REEL)
2	52.8392.0001	2	EA	RECP, FASTON .187"X0.32" 16-14 AWG FLAG DBL CRP
3	55.2186.0001	1	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
4	73.6016.0009	0.83	FT	WIRE, 16AWG 600V 105C PVC WHT UL1015
5	73.6016.0010	0.83	FT	WIRE, 16AWG 600V 105C PVC BLK UL1015

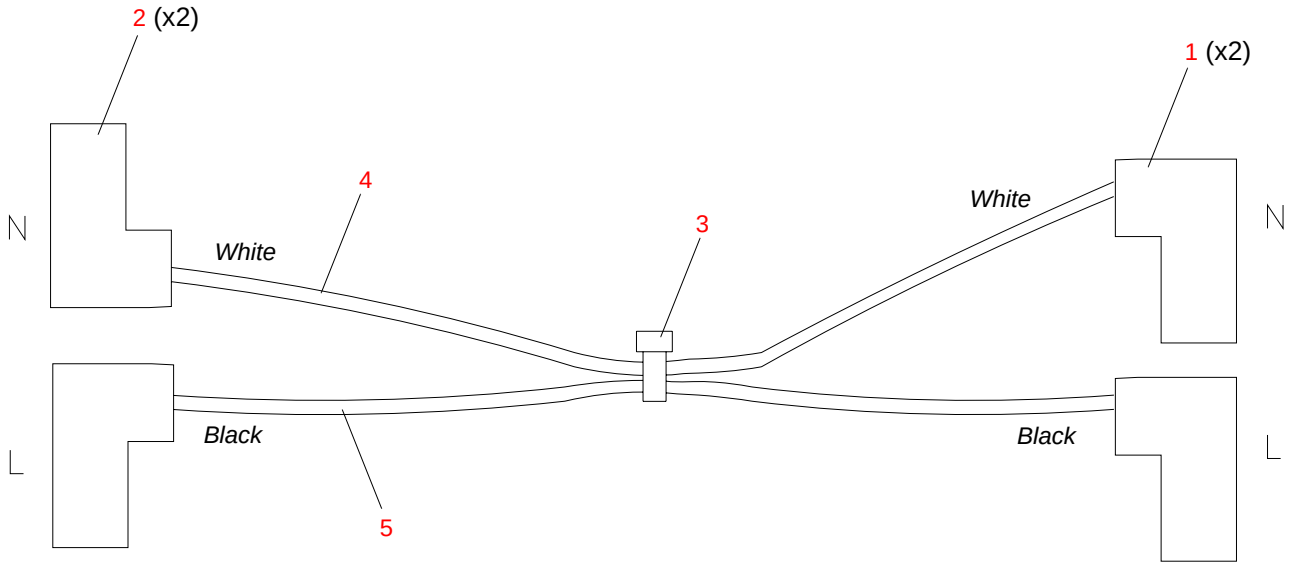


Figure 3-85: EMI Filter to Power Switch Cable Assembly

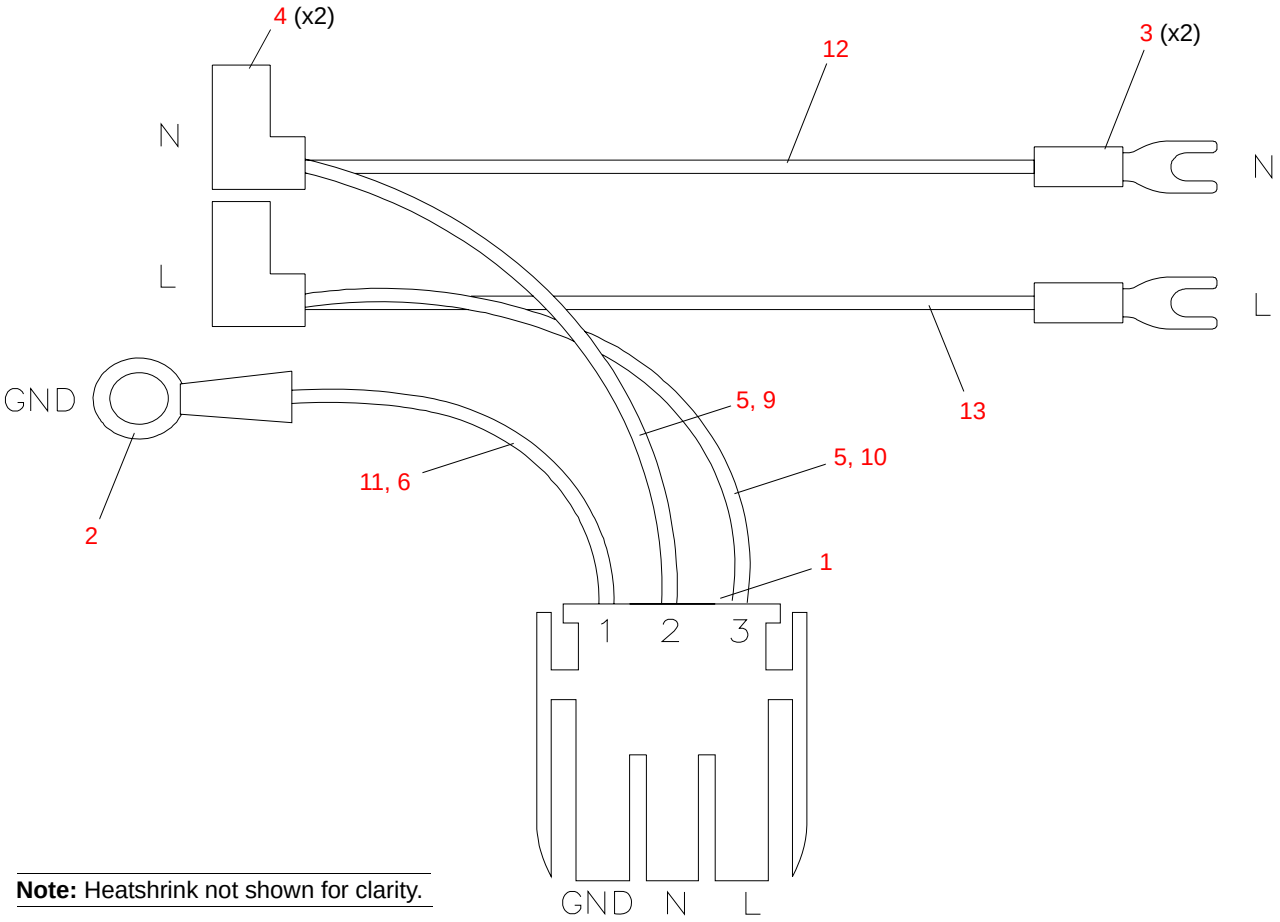
AC Input Splitter Cable Assembly

25.9678.0812 Rev E

Refer to Figure 3-86

No.	Item	Qty.	UM.	Description
1	52.6231.0001	1	EA	PLUG HOUSING, MNLOK PLUG 3 POS
2	52.8231.0005	1	EA	TERM, RING #6 BLUE 16-14 AWG REEL PIDG
3	52.8231.0008	2	EA	TERM, SPADE #6 RED 22-16 AWG INSERT
4	52.8392.0001	2	EA	RECP, FASTON .187" X 0.32" 16-14 AWG FLAG DBL CRP
5	52.8270.0001	2	EA	CONTACT PIN, 20-14 AWG MNLOK (REEL)
6	52.8314.0001	1	EA	PIN, GND 20-14 AWG MNLOK .060"- .130"INS DIA
7	55.2186.0001	3	EA	CABLE TIE, .10" WD, 4.00" LG, SMALL
8	55.6699.0003	1.50	FT	SLEEVING, 1/2" NOM. DIA. POLY EXP BRAIDED
9	73.6016.0009	1.83	FT	WIRE, 16 AWG 600V 105C PVC WHT UL1015
10	73.6016.0010	1.83	FT	WIRE, 16 AWG 600V 105C PVC BLK UL1015
11	73.6016.0504	2.08	FT	WIRE, 16 AWG 600V 105C PVC GRN/YEL UL1015
12	73.6018.0009	1.00	FT	WIRE, 18 AWG 600V 105C PVC WHT UL1015
13	73.6018.0010	1.00	FT	WIRE, 18 AWG 600V 105C PVC BLK UL1015

AC Input Splitter Cable Assembly (continued)



Note: Heatshrink not shown for clarity.

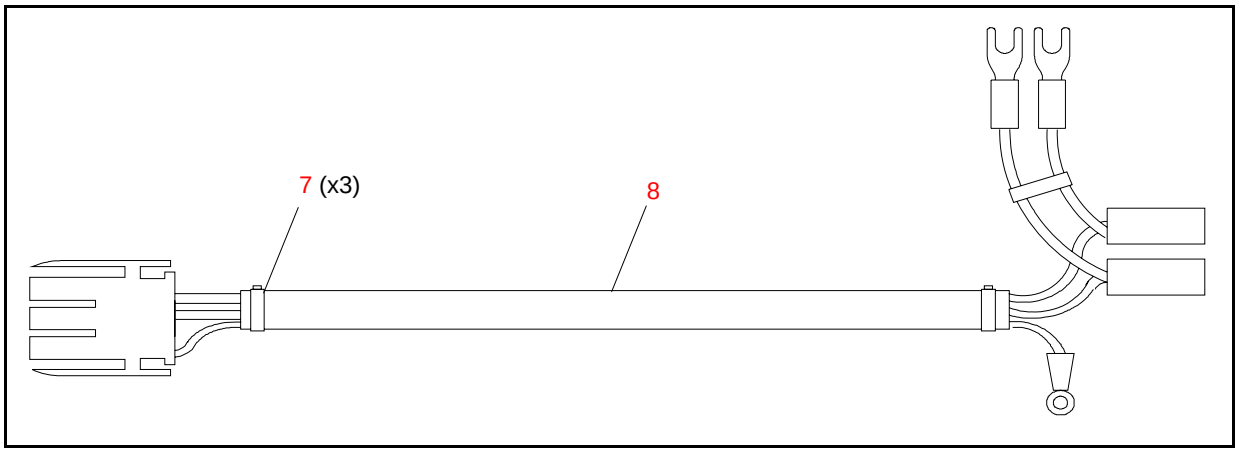


Figure 3-86: AC Input Splitter Cable Assembly

Data I/O Link Cable Assembly

25.9678.0813 Rev A

Refer to Figure 3-87

No.	Item	Qty.	UM.	Description
1	52.6396.2904	1	EA	RECEPT, 4 POS MTA100 W/POL TAB RED CLSD END (changed 05-03-06)
2	52.6396.2905	1	EA	RECEPT, 5 POS MTA100 W/POL TAB RED CLSD END (changed 05-03-06)
3	73.5122.0259	2.17	FT	CBL, 22AWG STRND 4COND PVC INSUL

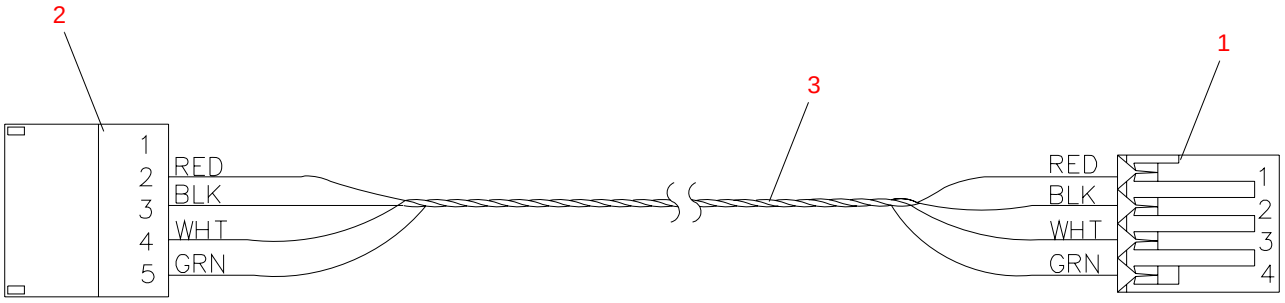


Figure 3-87: Data I/O Link Cable Assembly

Display Cable Assembly

25.9678.1825 Rev C

Refer to Figure 3-88

No.	Item	Qty.	UM.	Description
1	52.6396.2406	2	EA	RECEPT, 6 POS MTA100 W/POL TAB WHT CLSD END
2	73.5116.0123	1.02	FT	WIRE, 24AWG 4COND TW <BLK-BRN-RED-ORN>
3	55.2186.0001	4	EA	CABLE TIE, .10" WD 4" LG SMALL
4	73.7130.0004	0.958	FT	WIRE, TUBULAR BRAID, 1/8" X 23" LG
5	73.6224.0005	0.208	FT	WIRE, 24AWG 600V 200C TFE GRN 2.5" LG
6	55.6699.0009	2.08	FT	SLEEVING, 3/8" NOM DIA POLY EXP
7	55.6621.0001	1	EA	SLEEVE, NYLON THIN WALL #6 SCR 1.0" LG

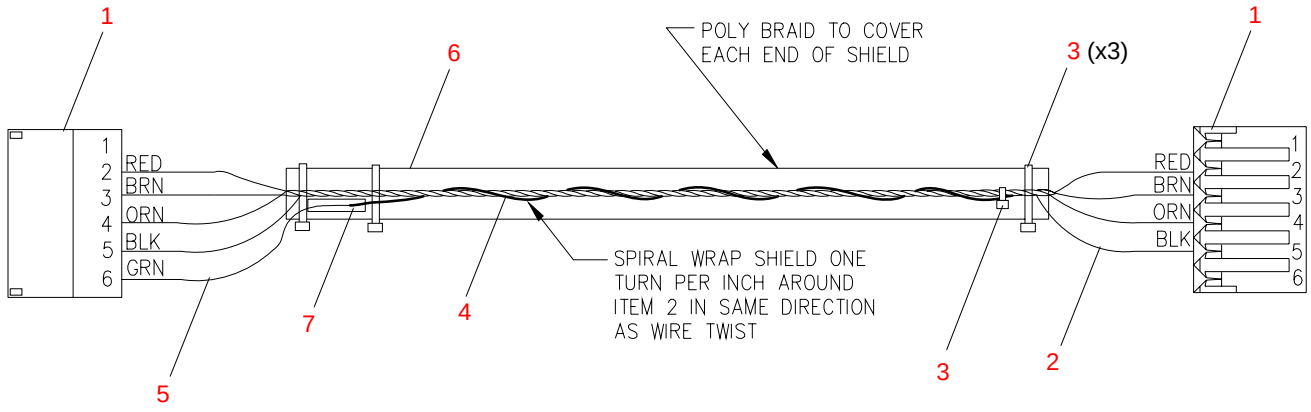


Figure 3-88: Display Cable Assembly

Ballast to Controller Cable Assembly

25.9678.0816 Rev A

Refer to Figure 3-89

No.	Item	Qty.	UM.	Description
1	52.6396.3002	1	EA	RECEPT, 2 POS MTA100 W/POL TAB WHT CLSD END (changed 05-03-06)
2	52.6396.3005	1	EA	RECEPT, 5 POS MTA100 W/POL TAB WHT CLSD END (changed 05-03-06)
3	52.6396.3008	1	EA	RECEPT, 8 POS MTA100 W/POL TAB WHT CLSD END (changed 05-03-06)
4	73.5124.1289	3.67	FT	WIRE, 24AWG 5COND <BLK-BRN-RED-GRN-WHT>

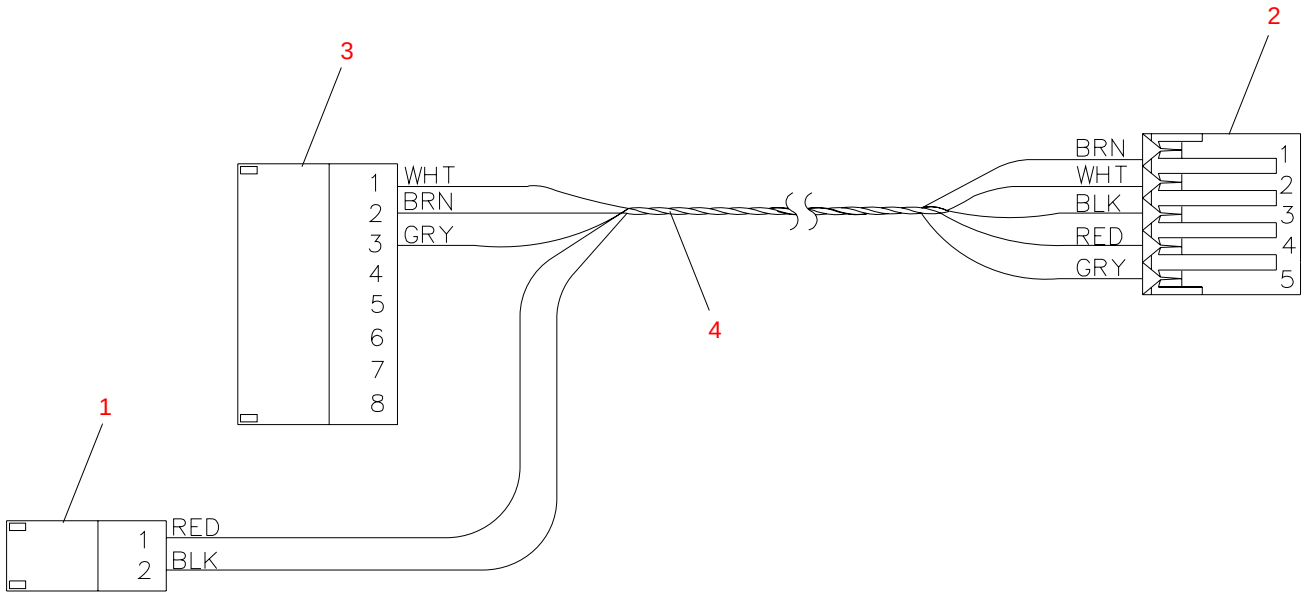


Figure 3-89: Ballast to Controller Cable Assembly

DC Output Cable Assembly

25.9678.0821 Rev E

Refer to Figure 3-90

No.	Item	Qty.	UM.	Description
1	52.6464.0002	1	EA	CONN, HOUSING, SL-156 2 POS
2	52.6464.0003	1	EA	CONN, HOUSING, SL-156 3 POS
3	52.8231.0004	2	EA	TERM, RING #6 BLUE 12-10 AWG INSRT
4	52.8323.0002	4	EA	CONTACT, CRIMP, 18-22 AWG SL-156 (**not shown**)
5	52.8274.1614	2	EA	CONN BUTT SPLICE 16-14 BLUE .150" OD MAX
6	55.2186.0001	4	EA	CABLE TIE, .01" x 4.00" SMALL
7	55.6699.0003	2.08	FT	SLEEVING, 1/2" NOM DIA POLY EXP BRAID
8	73.3518.0002	1.58	FT	WIRE, 18 AWG 300V 105C PVC RED
9	73.3518.0010	1.58	FT	WIRE, 18 AWG 300V 105C PVC BLK
10	73.7060.0001	2.08	FT	WIRE, 18 AWG HI VOLT RED YOKE LMP
11	73.7060.0002	2.08	FT	WIRE, 18 AWG HI VOLT BLK YOKE LMP

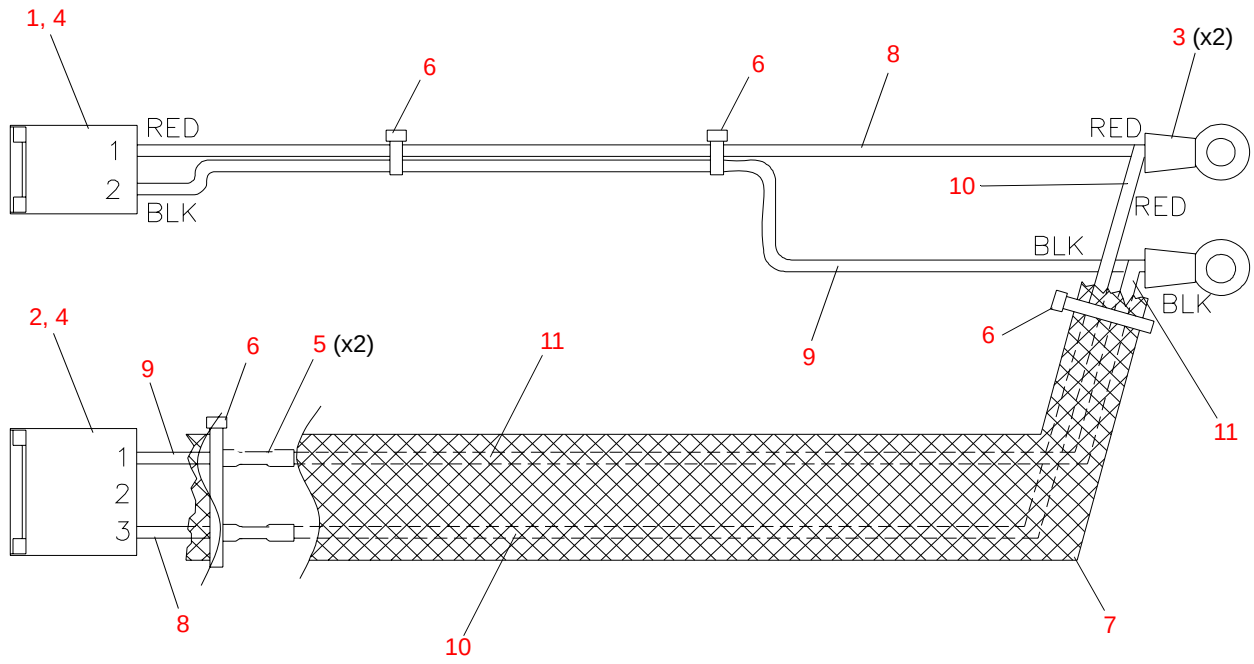


Figure 3-90: DC Output Cable Assembly

Pan/Tilt Control Cable Assembly

25.9678.0818 Rev B

Refer to Figure 3-91

No.	Item	Qty.	UM.	Description
1	52.6610.0008	1	EA	CONN, HOUSING, 20 POS DBL ROW UNLOADED (changed 05-03-06)
2	52.6224.1020	1	EA	COVER, FRONT 20 POS MT LATCHING
3	52.6224.2020	1	EA	COVER, BACK 20 POS MT
4	52.6524.0005	2	EA	CONN, HOUSING 5 POS RECEPTACLE
5	52.6588.0007	2	EA	HOUSING, 7 POS XH 250V/3A 2.5MM PITCH - USE SXH CONTACTS
6	52.7007.0001	6	EA	CONTACT, 28-22 AWG PHOSPHOR BRONZE TIN-PLT SXH
7	52.8346.0001	10	EA	CONTACT, 24-30 AWG FEMALE CRIMP
8	55.2186.0001	6	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
9	73.5119.0246	6.08	FT	WIRE, 24 AWG 3COND TW 600V 200C <RED-YEL-BLU>UL1213
10	73.5124.1289	6.17	FT	WIRE, 24 AWG 5COND 300V 80C (BLK-BRN-RED-GRY-WHT)
11	52.8351.0004	16	EA	CONTACT, 26-22 AWG RECP MTE (REEL) (added 05-03-06)

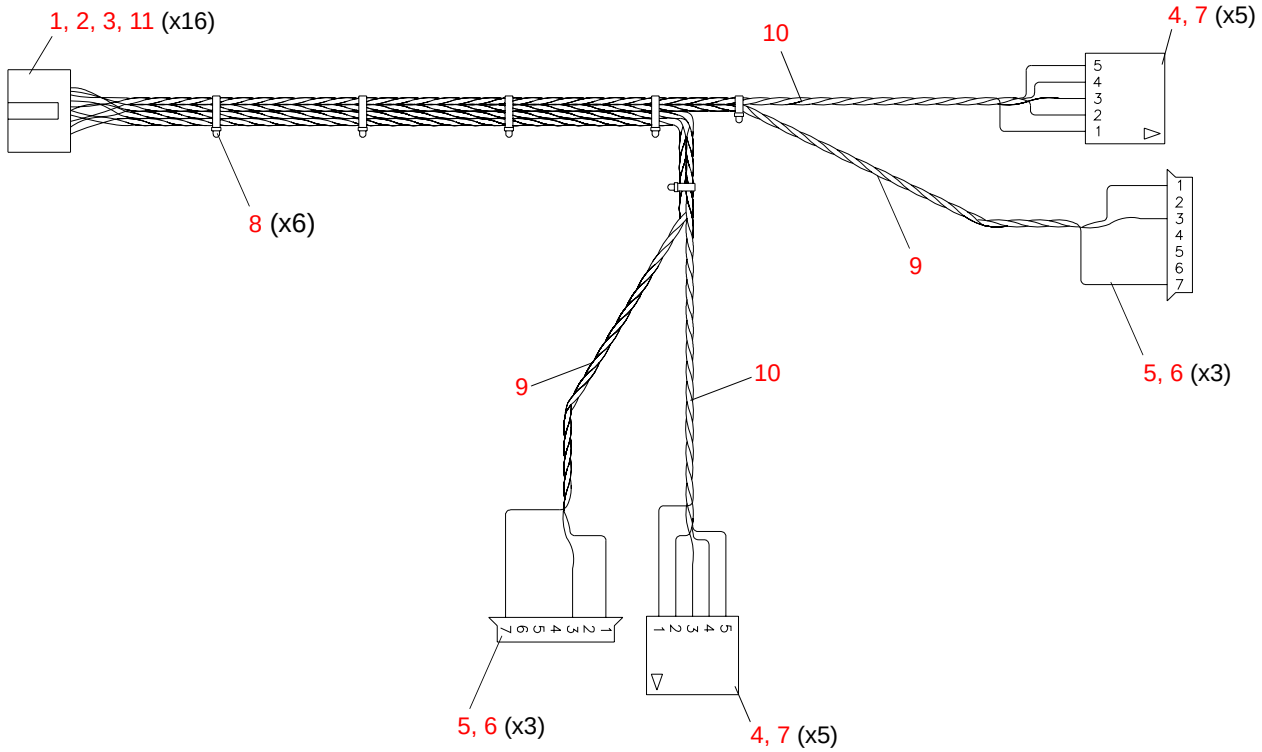


Figure 3-91: Pan/Tilt Control Cable Assembly

Lamp Supply to Relay Cable Assembly

25.9678.0829 Rev A

Refer to Figure 3-92

No.	Item	Qty.	UM.	Description
1	52.8245.0001	1	EA	TERM, RING #10 16 - 14 AWG REEL PIDG
2	52.8312.0001	4	EA	RECP, FASTON 1/4" 18-14 AWG INSULATED VO
3	55.2183.0001	0.33	FT	HEATSHRINK, 1/2" BLACK
4	55.2186.0001	3	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
5	55.6699.0003	3.19	FT	SLEEVING, 1/2" NOM. DIA POLY EXP BRAIDED
6	73.3516.0504	0.58	FT	WIRE, 16 AWG 300V 105 DEG C PVC GRN/YEL UL 1569
7	73.7089.0000	34.41	FT	WIRE, 22 AWG BLK 300V UL1180 TEFLON 19/34 STRANDED
8	73.7089.0009	34.41	FT	WIRE, 22 AWG WHT 300V UL1180 TEFLON 19/34 STRANDED
9	73.7130.0005	2.08	FT	WIRE, TUBULAR BRAID, 7/16"

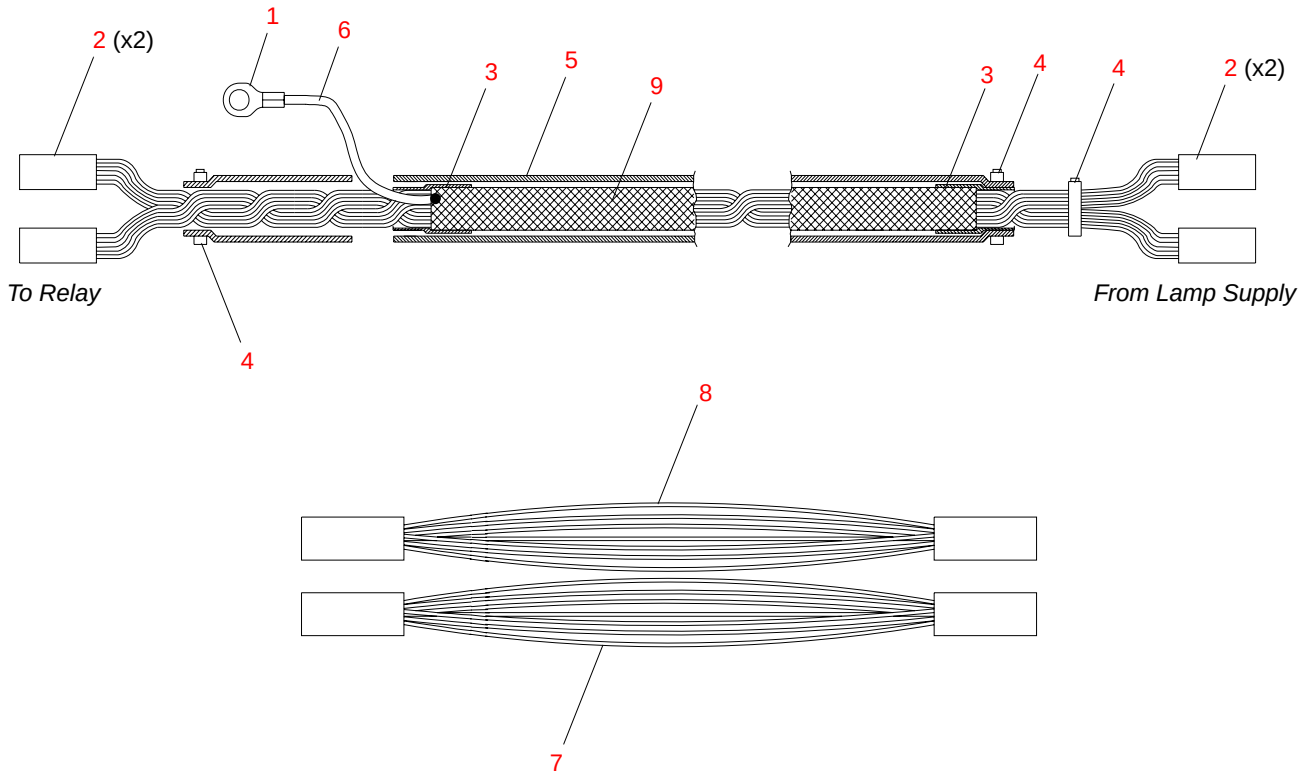


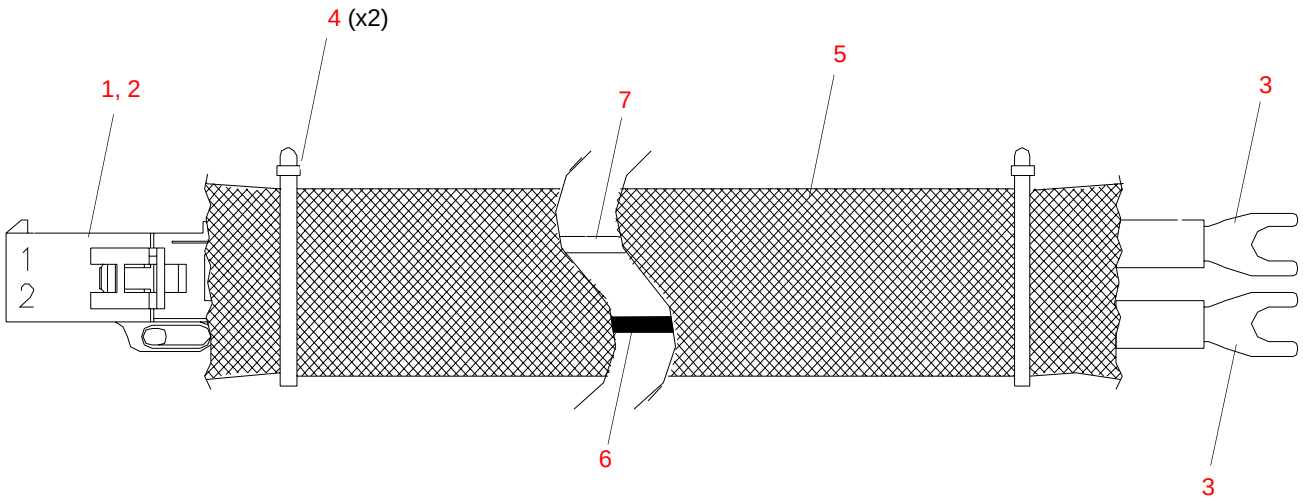
Figure 3-92: Lamp Supply to Relay Cable Assembly

LVS to Yoke AC Fan Cable Assembly

25.9678.0843 Rev A

Refer to Figure 3-93

No.	Item	Qty.	UM.	Description
1	52.6664.0001	2	EA	CONTACT, 22-26AWG FEMALE MATE-N-LOK 2
2	52.6664.0002	1	EA	CONN, HOUSING 2 POS CAP MATE-N-LOK 2
3	52.8231.0008	2	EA	TERM, SPADE #6 RED 22-16AWG INSERT
4	55.2186.0001	2	EA	CABLE TIE, 0.10" WD 4.00" LG SMALL
5	55.6699.0002	2.08	FT	SLEEVING, 1/4"NOM.DIA. POLY EXP BRAIDED
6	73.6222.0009	2.17	FT	WIRE, 22 AWG 600V 200C TFE WHT UL1199 19STRAND
7	73.6222.0010	2.17	FT	WIRE, 22 AWG 600V 200C TFE BLK UL1199



WIRE CHART				
FROM	CONN ITEM NO.	TO	CONN ITEM NO.	WIRE COLOR
PIN 1	2	SPADE	3	BLK
PIN 2	2	SPADE	3	WHT

Figure 3-93: LVS to Yoke AC Fan Cable Assembly

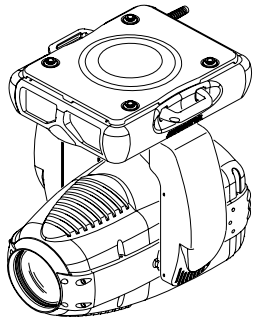
APPENDIX A.

Technical Bulletins

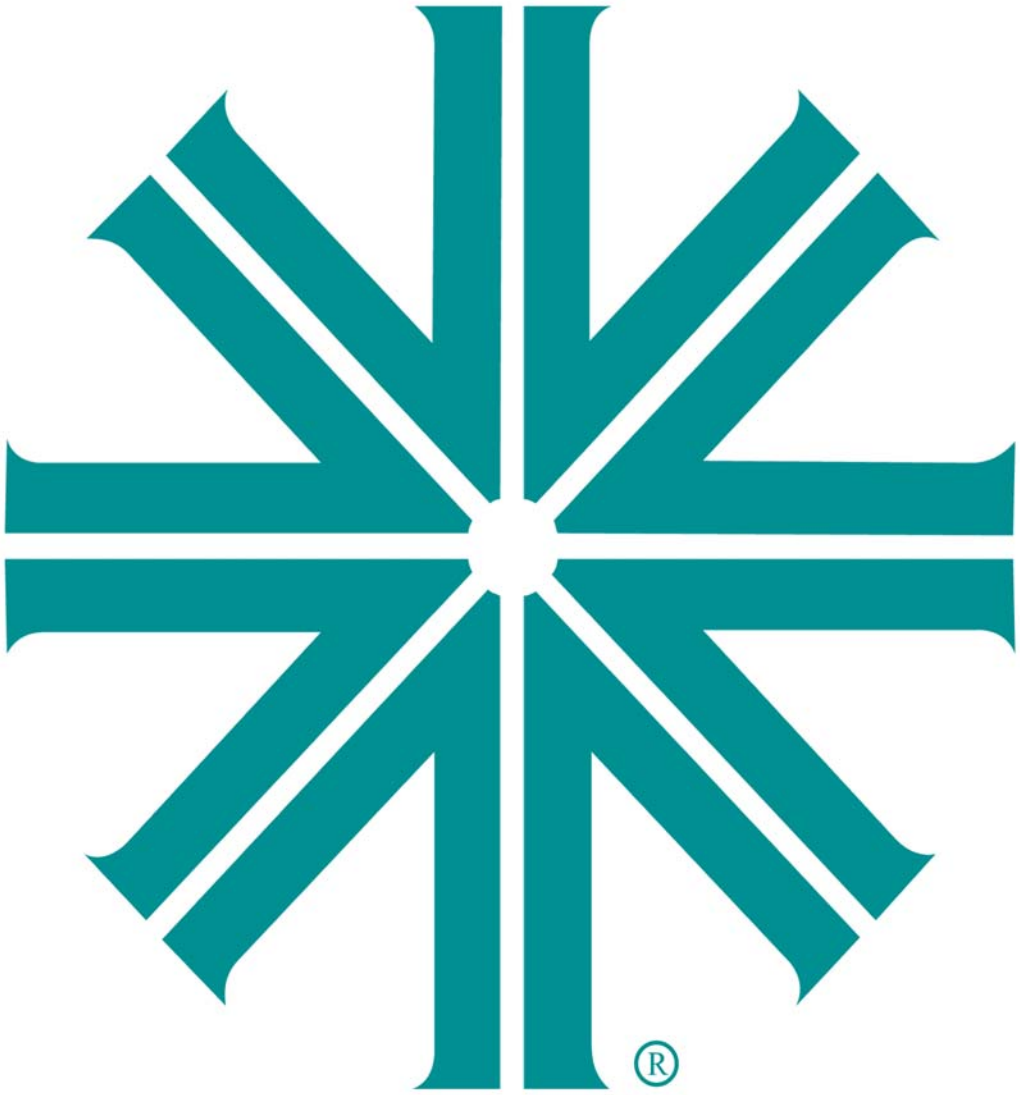
VL3000 & VL3000Q Technical Bulletins

The following table identifies the current technical bulletins associated with the VL3000 series luminaires. These improvements have been incorporated into this manual (where applicable) and are available on the Vari-Lite web site at www.vari-lite.com. Please note that not all bulletins or notices are applicable to all versions of the fixtures included in this manual. Refer to each bulletin and notice for specific information and application.

Technical Bulletin	Description	Model(s)
S3K-001	Tilt Sensor Wire Routing	Spot and Wash
S3K-002	Improving Lamp and Reflector Cooling	Spot and Wash
S3K-003	Cancelled	Not Applicable
S3K-004	Light Baffle Retrofit	Spot
S3K-005	Front End Filter Installation	Spot
S3K-006	Lanyard (Safety) Cable Retrofit	Spot and Wash
S3K-007	LVS DC Output Cable Replacement	Spot and Wash
S3K-008	Zoom Box Assembly Lens Group Cleaning	Spot
S3K-009	Choke Paper Inspection / Alignment	Spot and Wash
S3K-010	Pan Tube Bushing Installation	Spot and Wash
S3K-011	MCB PCB Wire Protection Strip	Spot and Wash
S3K-012	80MM Fan Shield Installation	Spot and Wash
S3K-013	VL3000Q/VL3500Q Vent Cover/Fan Assy Change	Q Models Only
S3K-014	New-Style Ballast Conversion Procedure	All Models



Notes



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